



*High Level Canal, Range I*—concluded.

Number of boats.	Nature of cargo.	APPROXIMATE		TONNAGE OF BOATS.		Ton- mileage.	Tollage.	Rate of toll per ton-mile.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.			

(2)—STORES AND MATERIALS FOR IRRIGATION WORKS.

## ABSTRACT.

	Mds.	Rs.			Rs. A. P.	
2	Private, including miscellaneous ...	10	10	50	5	0 4 9
...	Government stores, including miscellaneous	.....	.....	.....	.....	.....
2	Grand Total ...	10	10	50	5	0 4 9
...	Grand Total of same month last year	.....	.....	.....	.....	.....

MEMO.	RS. A. P.
Unrecovered balance on the 1st of the month	668 6 1
Amount of tollage for the month	0 4 9
Total	668 10 0
Amount credited in the accounts for the month	588 8 3
Tollage erroneously charged to steamer in January, February, and March, and part of April 1883	776 2 3
Balance at the end of the month (deficit)	1,364 10 6
	605 15 8

NOTE.—The canal was closed for repairs.

### *High Level Canal, Range II.*

LENGTH OF CANAL OPEN— $12\frac{1}{2}$  MILES.

LOCAL TRAFFIC

(1) — PRIVATE

		Mds.	Rs.				Rs. A. P.	A. P.
	Nil.				Nil.			
	Total	....	.....	.....	.....	.....	.....	.....
7	Total of same month last year	... 500	2,500	1,621	58	450	16 4 0	0 7 2
	MISCELLANEOUS.							
	Small dongsals (10 in number)	... ....	.....	.....	.....	.....	5 6 6	.....
	Total	... ....	.....	.....	.....	.....	5 6 6	.....
	Total of same month last year	... ....	250	.....	.....	.....	8 5 9	.....

(2)—STORES AND MATERIALS FOR IRRIGATION WORKS.

*High Level Canal, Range II—concluded.*

Number of boats.	Nature of cargo.	APPROXIMATE		TONNAGE OF BOATS.		Ton-mileage.	Tollage.	Rate of toll per ton-mile.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.			

## ABSTRACT.

		Mds.	Rs.					Rs. A. P.
..	Private, including miscellaneous	8,650	190	22,990	821	9,846	5 6 6	....
60	Government stores, including miscellaneous	.....	.....	.....	.....	.....	241 13 0	....
60	Grand Total	8,650	190	22,990	821	9,846	247 3 6	....

80	Grand Total of same month last year	8,700	3,000	25,086	895	10,474	257 14 3	....
----	-------------------------------------	-------	-------	--------	-----	--------	----------	------

## MEMO.

## Rs. A. P.

Unrecovered balance on the 1st of the month	.....	.....	.....	.....	.....	608 1 3
Amount of tollage for the month	.....	.....	.....	.....	.....	247 3 6

Total	.....	.....	.....	.....	.....	855 12 9
-------	-------	-------	-------	-------	-------	----------

## Rs. A. P.

Amount credited in the accounts for the month	.....	.....	110 8 3	.....	.....	.....
Tollage charged to steamer from January to April 1883 written back	.....	.....	323 13 6	.....	.....	443 5 9

Balance at the end of the month	.....	.....	.....	.....	.....	412 7 0
---------------------------------	-------	-------	-------	-------	-------	---------

NOTE.—The canal was closed for repairs.

*High Level Canal, Range III.*

## LENGTH OF CANAL OPEN—20 MILES.

## LOCAL TRAFFIC.

## (1)—PRIVATE.

	Nil.	Mds.	Rs.				Rs. A. P.	A. P.
..	Total	...	.....	.....	.....	.....	.....	.....
..	Total of same month last year	...	.....	.....	.....	.....	.....	.....
..	MISCELLANEOUS.	.....	.....	.....	.....	.....	.....	.....
..	Nil.	.....	.....	.....	.....	.....	.....	.....
..	Total	...	.....	.....	.....	.....	.....	.....
..	Total of same month last year	...	.....	.....	.....	.....	0 6 0	.....

## (2)—STORES AND MATERIALS FOR IRRIGATION WORKS.

	Nil.	Mds.	Rs.				Rs. A. P.	A. P.
..	Total	...	.....	.....	.....	.....	.....	.....
..	Total of same month last year	...	9,600	330	16,676	595	3,905	193 7 0 0 .94
..	MISCELLANEOUS.	.....	.....	.....	.....	.....	.....	.....
..	Nil.	.....	.....	.....	.....	.....	.....	.....
..	Total	...	.....	.....	.....	.....	.....	.....
..	Total of same month last year	...	.....	.....	.....	.....	.....	.....

## ABSTRACT.

	Nil.	Mds.	Rs.				Rs. A. P.	A. P.
..	Private, including miscellaneous	...	.....	.....	.....	.....	.....	.....
..	Government stores, including miscellaneous	.....	.....	.....	.....	.....	.....	.....
..	Grand Total	...	.....	.....	.....	.....	.....	.....
32	Grand Total of same month last year	9,600	330	16,676	595	3,905	193 13 0	.....

*High Level Canal, Range III—concluded.*

MEMO.				RS. A. P.	
Unrecovered balance on the 1st of the month				363	11 8
Amount of tollage for the month				.....	.....
				Total	363 11 8
				RS. A. P.	
Amount credited in the accounts for the month				242	8 0
Tollage erroneously charged to steamer written back				311	0 0
				553	8 0
Balance at the end of the month (deficit)				189	12 4

NOTE.—The canal was closed for repairs.

## SOUTH-WESTERN CIRCLE.

*Midnapore Canal.*

LENGTH OF CANAL OPEN—53 MILES.

Number of boats.	Nature of cargo.	APPROXIMATE		TONNAGE OF BOATS.		Ton- mileage.	Tollage.	Rate of toll per ton-mile.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.			

## LOCAL TRAFFIC.

## (1)—PRIVATE.

		Mds.	Rs.				RS. A. P.	A. P.
17	Coal	7,470	1,740	12,975	.....	.....	68	14 6
21	Coke	6,760	3,922	14,025	.....	.....	173	2 0
2	Ghooting	1,230	119	2,200	.....	.....	24	12 0
1	Bricks (3,000 in number)	150	30	375	.....	.....	1	6 6
19	Earthenware	2,145	550	5,075	.....	.....	28	8 6
32	Sand	12,450	1,852	23,450	.....	.....	94	5 0
2	Lime	150	150	400	.....	.....	2	6 0
20	Timber (212 in number)	2,677	4,491	3,650	.....	.....	84	14 0
14	Firewood	1,550	578	3,490	.....	.....	27	5 6
2	Iron	400	2,400	850	.....	.....	9	12 0
35	Brass	7,845	3,92,250	15,225	.....	.....	133	3 6
23	Copper	4,675	1,09,450	12,800	.....	.....	112	0 0
7	Silk	260	42,800	1,425	.....	.....	12	7 6
5	Cotton	800	14,025	2,200	.....	.....	16	10 0
12	Cotton piece-goods (European)	1,300	1,30,000	3,425	.....	.....	32	8 0
7	Jute	1,355	3,765	2,750	.....	.....	12	11 3
7	Mats	285	3,915	980	.....	.....	18	8 9
96	Paddy	14,015	10,397	25,840	.....	.....	446	2 0
549	Rice	1,28,167	1,93,833	2,39,500	.....	.....	2,972	6 6
5	Wheat	625	2,500	1,345	.....	.....	11	6 9
116	Gram	21,085	50,335	44,010	.....	.....	452	4 9
28	Linseed	9,150	27,055	18,475	.....	.....	224	2 6
31	Mustard-seed	5,430	21,550	12,355	.....	.....	97	5 9
1	Til	360	1,200	675	.....	.....	5	14 6
3	Other oil-seeds	1,120	5,750	2,375	.....	.....	20	12 6
3	Indigo seeds	600	5,000	1,225	.....	.....	24	12 0
19	Mustard-oil	3,025	14,975	7,670	.....	.....	96	15 3
10	Other oils	2,325	8,590	4,700	.....	.....	74	12 0
10	Oil-cake	2,310	2,318	5,125	.....	.....	45	8 0
223	Fruits	23,585	37,94	54,255	.....	.....	352	6 0
50	Tobacco	8,000	46,025	17,935	.....	.....	218	1 3
2	Spices	150	750	450	.....	.....	6	12 0
2	Cocomuts (4,000 in number)	150	80	300	.....	.....	9	0 0
24	Straw (565 kahuns)	6,450	1,578	14,500	.....	.....	75	14 0
3	Betelnuts	200	1,500	425	.....	.....	1	9 6
27	Sugar, unrefined	3,840	13,445	8,585	.....	.....	54	9 9
149	Salt	47,270	1,34,535	1,00,815	.....	.....	1,130	10 0
2	Hides (3,800 in number)	450	6,000	950	.....	.....	14	4 0
3	Horns	300	1,200	725	.....	.....	6	5 6
1,114	Empty boats	.....	1,09,080	.....	.....	.....	894	0 6
885	Passenger boats	.....	54,780	.....	.....	.....	468	12 3
43	Betel leaves	1,150	8,870	3,695	.....	.....	25	14 0
24	Sal piles (2,264 in number)	5,356	5,742	3,752	.....	.....	40	6 6
27	Cotton twist and yarn (European)	3,975	1,40,350	10,125	.....	.....	103	14 6
13	Curd	1,530	4,340	3,400	.....	.....	30	13 6
30	Miscellaneous	4,430	22,545	10,655	.....	.....	96	4 9
3	Furniture	190	600	405	.....	.....	7	10 9
7	Bamboos (515 in number)	82	53	82	.....	.....	1	10 6
6	Stone plates	1,450	8,025	2,475	.....	.....	32	0 0
9	Cotton piece-goods (Indian)	420	43,000	1,335	.....	.....	10	13 0
2	Other metals	75	225	190	.....	.....	0	11 6
2	Intoxicating drugs	550	1,825	1,150	.....	.....	17	4 0
3,835	Total	3,49,297	15,20,591	8,68,584	31,020	5,79,963	8,935	9 3
3,869	Total of same month last year	3,09,994	14,65,195	7,69,020	27,465	4,88,616	7,527	11 0
								0 29

## MISCELLANEOUS.

Passengers (10,351 in number)	182	0 0	.....
Demurrage, &c.	22	9 6	.....
Total	204	9 6	.....
18 Total of same month last year	208	6 3	.....

*Midnapore Canal—concluded.*

Number of boats.	Nature of cargo.	APPROXIMATE		TONNAGE OF BOATS.		Ton-milage.	Tollage.	Rate of toll per ton-mile.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.			

## (2)—STORES AND MATERIALS FOR IRRIGATION WORKS.

		Mds.	Rs.				Rs. A. P.
...	Nil.	.....	.....	.....	.....	.....	.....
...	Total	...	.....	.....	.....	.....	.....
...	Total of same month last year	...	.....	.....	.....	.....	.....
...	MISCELLANEOUS.						
...	Nil.	.....	.....	.....	.....	.....	.....
...	Total	...	.....	.....	.....	.....	.....
...	Total of same month last year	...	.....	.....	.....	.....	.....

## ABSTRACT.

		Mds.	Rs.				Rs. A. P.
3,853	Private, including miscellaneous	3,49,297	15,29,591	8,68,584	31,020	5,79,903	9,140 2 9
...	Government stores, including miscellaneous	.....	.....	.....	.....	.....	.....
3,853	Grand Total	3,49,297	15,29,591	8,68,584	31,020	5,79,903	9,140 2 9*
3,917	Grand Total of same month last year	3,09,994	14,65,195	7,69,020	27,465	4,88,646	7,736 1 3

\* This includes tolls on the Narainghur channel, amounting to Rs. 152-5-3.

MEMO.	Rs. A. P.
Unrecovered balance on the 1st of the month	856 2 10
Amount of tollage for the month	9,140 2 9
Total	9,096 5 7
Amount credited in the accounts for the month	7,971 6 9
Balance at the end of the month	2,024 14 10

*Hidgellee Tidal Canal.*

## LENGTH OF CANAL OPEN—29 MILES.

## LOCAL TRAFFIC.

## (1)—PRIVATE.

		Mds.	Rs.				Rs. A. P.	A. P.
327	Paddy	55,217	41,368	1,08,980	.....	.....	1,676 4 3	.....
450	Rice	1,45,366	1,83,748	2,78,065	.....	.....	3,605 5 9	.....
3	Pulses and other crops	800	1,100	1,650	.....	.....	11 5 6	.....
41	Fruits and vegetables	2,799	7,499	6,785	.....	.....	90 5 3	.....
8	Jaggery	530	4,360	1,540	.....	.....	26 3 3	.....
2	Suzar	100	450	240	.....	.....	4 5 3	.....
50	Sait	8,424	20,347	19,840	.....	.....	241 1 6	.....
2	Curd	30	60	200	.....	.....	1 6 0	.....
19	Oil	2,210	2,066	6,245	.....	.....	69 13 6	.....
77	Tobacco	6,460	37,140	17,075	.....	.....	241 2 0	.....
34	Cotton piece-goods (European)	3,840	20,170	9,905	.....	.....	138 15 6	.....
9	Iron	690	9,450	1,820	.....	.....	24 9 6	.....
4	Cotton	770	9,660	1,850	.....	.....	33 8 6	.....
5	Jute	800	2,150	2,125	.....	.....	15 7 9	.....
1	Bones	100	5	200	.....	.....	1 6 0	.....
3	Mustard-seed	190	1,520	480	.....	.....	6 1 9	.....
2	Bricks	300	2,500	625	.....	.....	11 5 3	.....
1	Tiles	200	475	.....	.....	.....	3 4 3	.....
4	Ghooting lime	510	365	1,225	.....	.....	8 6 9	.....
8	Ghooting	740	695	1,430	.....	.....	9 13 0	.....
4	Unwrought timber and piles	400	434	365	.....	.....	14 4 3	.....
2	Bamboos	64	100	130	.....	.....	2 6 3	.....
10	Coal and coke	1,070	870	4,925	.....	.....	82 3 9	.....
2	Firewood	420	104	725	.....	.....	5 8 9	.....
1	Earthenware and earthenpots	.....	275	.....	.....	.....	1 14 3	.....
1,109	Total	2,32,930	3,45,461	4,67,175	22,261	4,64,214	6,329 7 9	0 3 3
1,984	Total of same month last year	1,63,735	2,79,135	4,27,675	15,270	3,21,022	5,603 12 9	0 3 3
	MISCELLANEOUS.							
28	Passenger boats	.....	.....	1,545	.....	.....	22 8 9	.....
609	Empty do.	.....	.....	1,17,000	.....	.....	1,453 12 9	.....
50	Straw	8,445	5,293	19,750	.....	.....	137 5 0	.....
6	Mats	720	3,600	2,670	.....	.....	18 5 6	.....
59	Miscellaneous	6,180	15,508	15,170	.....	.....	187 2 6	.....
1,010	Total	15,845	24,407	1,56,135	.....	.....	1,819 2 6	.....
2	Total of same month last year	213	397	.....	.....	.....	17 9 9	.....

*Hidgellee Tidal Canal—concluded.*

Number of boats.	Nature of cargo.	APPROXIMATE		TONNAGE OF BOATS.		Ton-mileage.	Tollage.	Rate of toll per ton-mile.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.			

(2)—STORES AND MATERIALS FOR IRRIGATION WORKS.

		Mds.	Rs.				Rs. A. P.	A. P.
	Total	...	.....	.....	.....	.....	.....	.....
7	Total of same month last year	296	782	1,200	48	1,000	18 8 3	0 3 3
	MISCELLANEOUS.							
2	Stores, &c. ....	480	6,100	1,025	37	901	15 12 3	.....
2	Total	480	6,100	1,025	37	901	15 12 3	.....
...	Total of same month last year	.....	.....	.....	.....	.....	.....	.....

ABSTRACT.

		Mds.	Rs.				Rs. A. P.	
2,119	Private, including miscellaneous	2,48,275	3,69,868	6,23,310	22,261	4,64,214	8,148 10 3	.....
2	Government stores, including miscellaneous	480	6,100	1,025	37	901	15 12 3	.....
2,121	Grand Total	2,48,755	3,75,968	6,24,335	22,298	4,65,115	8,164 6 6	.....
1,993	Grand Total of same month last year	1,64,244	2,80,314	4,28,775	15,313	3,22,082	5,630 14 9	.....

MEMO. RS. A. P.

Unrecovered balance on the 1st of the month	...	...	...	...	...	1,280 8 3
Amount of tollage for the month	...	...	...	...	...	8,164 6 6
						Total 9,444 14 9
Amount credited in the accounts for the month	...	...	...	...	...	8,589 11 6
Balance at the end of the month	...	...	...	...	...	855 3 3

SONE CIRCLE.

*Eastern Main and Patna Canals.*

LENGTH OF CANAL OPEN—86½ MILES.

LOCAL TRAFFIC.

(1)—PRIVATE.

	Nil.	Mds.	Rs.		Nil.		Rs. A. P.	A. P.
	Total	...	.....	.....	.....	.....	.....	.....
249	Total of same month last year	51,160	1,69,088	73,618	2,619	161,270	1,555 0 3	0 1 1
	MISCELLANEOUS.							
	Total	...	.....	.....	.....	.....	.....	.....
...	Total of same month last year	...	83,700	.....	.....	.....	753 1 0	.....

(2)—STORES AND MATERIALS FOR IRRIGATION WORKS.

		Mds.	Rs.				Rs. A. P.	A. P.
	Total	...	.....	.....	.....	.....	.....	.....
24	Total of same month last year	810	411	5,484	159	8,500	25 6 6	0 1 3
	MISCELLANEOUS.							
	Total	...	.....	.....	.....	.....	.....	.....
7	Total of same month last year	...	.....	.....	.....	.....	.....	.....

ABSTRACT.

		Mds.	Rs.				Rs. A. P.	
...	Private, including miscellaneous	...	.....	Nil	.....	.....	.....	
...	Government stores, including ditto	...	.....	Nil	.....	.....	.....	
	Grand Total	...	.....	.....	.....	.....	.....	
280	Grand Total of same month last year	51,970	2,35,199	79,102	2,778	1,64,779	2,333 7 9	.....

MEMO. RS. A. P.

Unrecovered balance on the 1st of the month	...	...	...	...	...	199 2 3
Amount of tollage for the month	...	...	...	...	...	.....
						Total 199 2 3
Amount credited in the accounts for the month	...	...	...	...	...	1 5 0
Balance at the end of the month	...	...	...	...	...	197 13 3

NOTE.—The canal was closed for repairs.

*Western Main Canal.*

LENGTH OF CANAL OPEN—22 MILES.

## LOCAL TRAFFIC.

## (1)—PRIVATE.

Number of boats.	Nature of cargo.	APPROXIMATE		TONNAGE OF BOATS.		Ton-mileage.	Tollage.	Rate of toll per ton-mile.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.			
1	Rice	110	275	275	10	100	1 11 6	.....
53	Wheat	25,624	51,248	33,500	1,196	11,960	209 6 0	.....
3	Spices	881	7,048	1,300	46	430	8 2 0	.....
1	Saltpetre	210	840	300	10	100	6 9 0	.....
19	Linseed	8,816	26,538	11,375	406	4,060	79 11 0	.....
2	Mustard seed	921	2,763	1,125	40	400	7 0 6	.....
1	Gairoo	435	217	600	27	210	3 12 0	.....
80	Total	37,027	88,929	48,475	1,666	17,290	316 4 0	0 3 5
...	Total of same month last year	...	.....	.....	.....	.....	.....	.....
MISCELLANEOUS.								
1	Passenger boat	.....	.....	200	70	70	1 4 9	.....
1	Empty boat	.....	.....	225	8	80	0 11 3	.....
...	Excess toll charged for wrong calculation	.....	.....	.....	.....	.....	0 8 9	.....
...	Fee for using duplicate toll tickets	.....	.....	.....	.....	.....	1 0 0	.....
2	Total	...	.....	425	78	150	3 8 0	.....
...	Total of same month last year	...	.....	.....	.....	.....	.....	.....

## (2)—STORES AND MATERIALS FOR IRRIGATION WORKS.

		Mds.	Rs.				Rs. A. P.	A. P.
1	Building stones	200	10	350	12	450	2 8 3	.....
1	Total	200	10	350	12	450	2 8 3	0 1 0
...	Total of same month last year	...	.....	.....	.....	.....	.....	.....
MISCELLANEOUS.								
...	Nil	...	Nil	...	...	...	*	.....
...	Total	...	.....	.....	.....	.....	.....	.....
...	Total of same month last year	...	.....	.....	.....	.....	.....	.....

## ABSTRACT.

		Mds.	Rs.				Rs. A. P.	A. P.
82	Private, including miscellaneous	37,027	88,929	48,900	1,744	17,440	319 12 0	.....
1	Government stores, including miscellaneous	200	10	350	12	450	2 8 3	.....
88	Grand Total	37,227	88,939	49,250	1,756	17,890	322 4 3	.....

	MEMO.	Rs. A. P.
Unrecovered balance on the 1st of the month	...	.....
Amount of tollage for the month	...	322 4 3
	Total	322 4 3
Amount credited in the accounts for the month	...	322 4 3
Balance at the end of the month	...	.....

### *Arrah Canal.*

LENGTH OF CANAL OPEN—65 MILES.

Number of boats.	Nature of cargo.	APPROXIMATE		TONNAGE OF BOATS.		Ton- mileage.	Tollage.	Rate of toll per ton-mile.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.			

## LOCAL TRAFFIC.

(1) - PRIVATE.

		Mds.	Rs.			Rs. A. P.	A. P.
12	Rice	2,867	7,187	4,667	166	9,494	92 10 9
61	Wheat	28,386	70,965	38,586	1,378	90,690	601 10 3
1	Pulses and other crops	183	75	338	12	504	5 1 3
16	Jaggery	3,168	7,920	5,558	198	7,238	80 7 0
5	Sugar	1,336	13,360	2,086	74	2,848	29 11 9
35	Salt	8,444	25,332	13,644	437	26,570	257 11 9
4	Spices	990	4,950	1,540	54	8,800	24 2 3
14	Tobacco	1,619	16,190	3,719	132	6,892	72 9 9
52	Castor seed	14,080	42,240	21,880	781	50,453	402 10 6
2	Til seed	842	2,526	1,142	40	3,000	17 9 3
1	Building stores	262	4,229	612	22	4,650	9 6 0
2	Stone lime	169	169	369	13	633	6 10 6
...	Bulahs and bamboos (2,121,834 in number)	.....	.....	.....	.....	638 11 9	.....
3	Coal and coke	1,106	553	1,606	57	1,932	24 9 9
215	Total	63,452	1,95,676	95,647	3,414	119,715	2,263 10 6
...	Total of same month last year	.....	.....	.....	.....	.....	0 3 6
MISCELLANEOUS.							
28	Passenger boats	....	....	2,853	162	7,583	57 6 6
118	Empty boats	....	....	10,953	371	14,998	79 12 9
1	Straw	50	25	150	5	285	4 14 9
3	Furniture	459	2,290	909	32	1,636	13 10 9
2	Mats	75	150	375	12	840	8 3 6
9	Gunny	863	7,523	2,213	79	3,926	39 1 6
3	Poppy leaves	245	61	395	14	207	3 4 0
164	Total	1,692	10,040	17,948	615	29,475	206 6 0
...	Total of same month last year	.....	.....	.....	.....	.....	.....

(2)—STORES AND MATERIALS FOR IRRIGATION WORKS.

## ABSTRACT.

MEMO.	RS. A. P.
Unrecoverable balance on the 1st of the month	... ... ... ... 24 1 0
Amount of tollage for the month	... ... ... ... 3,522 1 3
	Total
Amount credited in the accounts for the month	... ... ... ... 2,505 8 0
Balance at the end of the month	... ... ... ... 40 10 3

*Buxar Canal.*

LENGTH OF CANAL OPEN—43½ MILES.

Number of boats.	Nature of cargo.	APPROXIMATE		TONNAGE OF BOATS.		Ton- mileage.	Tollage.	Rate of toll per ton-mile.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.			
6	Rice	400	687	850	30	997	15 13 9	.....
128	Wheat	57,237	85,174	40,119	1,754	61,303	756 13 9	.....
2	Fruits and vegetables	75	75	225	8	268	3 6 0	.....
2	Jagzerry	325	650	550	20	568	6 5 0	.....
2	Tobacco	500	1,400	550	19	1,040	11 13 0	.....
1	Gooling lime	175	30	200	7	245	5 4 0	.....
...	Bullahs (11,884)	...	...	...	...	...	296 4 0	.....
...	Bamboos (647,075)	...	...	...	...	...	...	.....
141	Total	58,712	88,016	51,494	1,838	64,421	1,693 11 6	0 3 3
...	Total of same month last year	...	...	...	...	...	...	.....
MISCELLANEOUS.								
1	Passenger boat	...	...	100	3	48	0 9 0	.....
147	Empty boats	...	...	13,700	489	18,653	106 11 3	.....
2	Furniture	300	2,000	625	22	2,376	27 5 6	.....
1	Gunny	10	175	50	2	76	0 12 6	.....
...	Excess toll realized for wrong calculation	...	...	...	...	...	0 11 0	.....
151	Total	310	2,175	14,475	516	21,153	136 1 3	.....
...	Total of same month last year	...	...	...	...	...	...	.....

## (2) STORES AND MATERIALS FOR IRRIGATION WORKS.

	Nil.	Mds.	Rs.				Rs. A. P.	A. P.
...	Total	...	...	...	...	...	...	.....
...	Total of same month last year	...	...	...	...	...	...	.....
MISCELLANEOUS.								
1	Empty boat	...	...	100	3	108	0 11 6	.....
1	Total	...	...	100	3	108	0 11 6	.....
...	Total of same month last year	...	...	...	...	...	...	.....

## ABSTRACT.

	Mds.	Rs.					Rs. A. P.	A. P.
292	Private, including miscellaneous	59,022	90,191	65,969	2,354	85,574	1,229 12 9	.....
1	Government stores, including miscellaneous	.....	.....	100	3	108	0 11 6	.....
293	Grand Total	59,022	90,191	66,069	2,357	85,682	1,230 8 3	.....
...	Grand Total of same month last year	.....	.....	.....	.....	.....	.....	.....

## MEMO.

Rs. A. P.

Unrecovered balance on the 1st of the month ... ... ... ... 31 13 6

Amount of tollage for the month ... ... ... ... 1,230 8 3

Total ... 1,262 5 9

Amount credited in the accounts for the month ... ... ... ... 1,108 12 3

Balance at the end of the month ... ... ... ... 153 0 6

ABSTRACT.

CANAL.	TRAFFIC, 1883-84.			TRAFFIC, 1882-83.			REMARKS.
	During the month.	To end of the month.	During the corresponding month.	To end of the corresponding month.			
<b>ORISSA CIRCLE.</b>							
Taldunda		Rs. A. P.		Rs. A. P.		Rs. A. P.	
Kendrapara	... ... ...	12 2 5	336 13 9	... ...	598 12 5		
High Level, Range I	... ... ...	0 4 9	6,736 4 5	13 11 0	4,882 12 8		
Ditto, ditto II	... ... ...	247 3 6	1,054 8 3	... ...	512 6 3		
Ditto, ditto III	... ... ...	... ...	250 15 8	267 14 3	1,583 15 3		
Total Orissa Circle	...	259 10 8	9,303 0 4	465 6 3	7,822 13 9		
<b>SOUTH-WESTERN CIRCLE.</b>							
Midnapore	... ... ...	9,140 2 9	19,376 14 9	7,736 1 3	15,140 9 6		
Hidgelee Tidal	... ... ...	8,164 6 6	12,180 7 9	5,630 14 9	11,866 1 9		
Total South-Western Circle	...	17,304 9 3	32,557 6 6	13,376 0 0	27,006 11 3		
<b>SONE CIRCLE.</b>							
Eastern Main and Patna	... ... ...	... ...	1,172 2 6	2,333 7 9	5,471 10 9		
Western Main	... ... ...	322 4 3	424 15 3	... ...	139 3 0		
Arrah	... ... ...	2,522 1 3	3,408 14 0	... ...	503 15 3		
Buxar	... ... ...	1,230 8 3	1,739 11 0	... ...	149 15 11		
Total Sone Circle	...	4,074 13 9	6,745 10 9	2,333 7 9	6,264 12 11		
<b>GRAND TOTAL</b>	...	21,639 1 8	48,606 1 7	16,174 14 0	41,094 5 11		

GOVERNMENT TRANSPORT SERVICE.

CANAL.	TRAFFIC, 1883-84.						TRAFFIC, 1882-83.					
	During the month.			To end of the month.			During the corresponding month.			To end of the corresponding month.		
	Passengers.	Goods.	Total receipts.	Passengers.	Goods.	Total receipts.	Passengers.	Goods.	Total receipts.	Passengers.	Goods.	Total receipts.
<b>ORISSA CIRCLE.</b>												
Taldunda and Kendrapara	... ...	*133	46 15 3	1,622	*133	3,307 15 6	...	2 12 0	1,116	... ...	2,765 4 7	
High Level	... ...	144	391	222 5 0	591	1,661	727 10 7	...	...	145	264	101 1 6
Total Orissa Circle	...	144	391	269 4 3	2,213	1,661	4,035 10 1	...	2 12 0	1,261	264	2,866 6 1
<b>SOUTH-WESTERN CIRCLE.</b>												
Midnapore	... ... ...	10,877	329	1,000 0 0	22,501	732	2,000 0 0	14,312	238	4,584 0 0	25,814	646
Total South-Western Circle	...	10,877	329	1,000 0 0	22,501	732	2,000 0 0	14,312	238	4,584 0 0	25,814	646
<b>SONE CIRCLE.</b>												
Eastern Main and Patna	... ...	...	...	417	1,686	434 2 0	2,177	4,302	1,909 3 0	3,602	6,867	3,140 1 6
Western Main and Buxar	... ...	1,722	3,702	1,184 11 0	2,516	5,317	1,783 7 9	...	...	607	2,776	396 4 3
Arrah	... ...	2,790	3,046	1,927 0 0	3,865	4,707	2,770 0 0	...	...	515	1,013	509 0 0
Total Sone Circle	...	4,512	6,838	3,111 11 0	6,798	11,800	4,937 9 9	2,177	4,302	1,909 3 0	4,804	10,656
<b>GRAND TOTAL</b>	...	15,533	7,558	4,380 15 3	31,512	14,193	10,973 3 10	16,489	4,540	6,495 15 0	31,879	11,586

\* Parcels.

TOTAL NAVIGATION RECEIPTS.

	EARNINGS, 1883-84.				EARNINGS, 1882-83.				REMARKS.	
	During the month.		To end of the month.		During the corresponding month.		To end of the corresponding month.			
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.		
Orissa canals	... ... ...	528 14 11	16,338 10 5	468 2 3	10,689 3 10					
Midnapore canal	... ... ...	10,140 2 9	21,376 14 9	12,320 1 3	23,680 9 6					
Hidgelee Tidal canal	... ... ...	8,164 6 6	13,180 7 9	5,639 14 9	11,866 1 9					
Sone canals	... ... ...	7,186 8 9	11,682 4 6	4,242 10 9	10,310 2 2					
<b>GRAND TOTAL</b>	...	26,020 0 11	59,579 5 5	22,670 13 0	56,546 1 3					

C. W. ODLING,

CALCUTTA,  
The 17th July 1883.

Under-Secy. to the Government of Bengal,  
P. W. Dept.

Report on Traffic of the East Indian Railway during five weeks ending  
26th May 1883.

The audited figures for the period are as follow :—

Increases per cent. in earnings—

Coaching ... 11·64.

**Coaching ...** 25·18  
**Goods ...** 25·18

Total ... 21·80

The following is a statement of audited Coaching Traffic during five weeks ending 26th May 1883 as compared with 1882.

DESCRIPTIONS.	1883.		1882.		Increase.		Decrease.	
	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.
First class	Ordinary...	3,255	28,004	3,136	29,540	119	.....	.....
	Military ...	70½	1,174	116½	1,675	.....	46	1,536 501
	Total	3,325½	29,178	3,252½	31,215	119	.....	46 2,037
Second class	Ordinary...	9,890½	33,731	9,967	34,288	.....	70½	557
	Military ...	1,302½	6,003	2,052	8,407	.....	749½	2,494
	Total	11,199	39,734	12,019	42,785	.....	820	3,051
Intermediate class	Ordinary...	45,422	37,017	83,821	51,720	.....	38,390	14,703
	Military ...	.....	.....	2	6	.....	2	6
	Total	45,422	37,017	83,823	51,726	.....	38,401	14,709
Third class	Ordinary...	1,123,307	9,71,824	841,448	8,29,488	281,858½	1,42,336	.....
	Military ...	1,570½	7,474	3,090½	14,015	.....	1,520	6,541
	Total	1,124,877½	9,79,298	844,539	8,43,503	281,858½	1,42,336	1,520 6,541
Luggage	Ordinary...	.....	51,809	.....	32,503	.....	.....	694
	Military ...	.....	1,780	.....	2,344	.....	.....	564
	Total	.....	33,589	.....	34,847	.....	.....	1,258
Horses, carriages, dogs	Ordinary...	.....	11,634	.....	15,616	.....	.....	3,982
	Military ...	.....	2,321	.....	1,450	.....	871	.....
	Total	.....	13,955	.....	17,066	.....	871	.....
Parcels	.....	.....	30,650	.....	25,486	.....	5,164	.....
	.....	.....	27,948	.....	20,482	.....	7,466	.....
	Total	.....	58,598	.....	45,968	.....	12,630	.....
Other traffic	Grand Total	1,184,824	11,91,369	943,033½	10,67,110	281,977½	1,55,837	40,787 31,578
	Net	.....	.....	.....	.....	241,190½	1,24,259	.....

The increase is in third class ordinary passengers who appear to have been moving in large numbers to the various mélés and places of pilgrimage.

The average number of passengers in a train at any one time was for the period—

May 1883 ... ... ... ... ... ... ... 268  
... ... ... ... ... ... ... 266

May 1882 ... ... ... ... ... ... ... ... ... 266

shewing the necessity for the extra train service.

### Goods.

The main features in the month's traffic are the large increases in the export wheat and seed trade, and the falling off in weight and earnings of material carried on construction account.

The principal fluctuations are given below :—

	INCREASES.	
Coal, down.		Piece-goods.
Ordnance stores.		Railway materials (Foreign.)
Wheat.		Seeds.
Gunny.		Sugar.
	DECREASES.	
Beer, Commissariat.		Iron.
Coal, up.		Construction material.
Rice.		Salt.
		Stone.

Reviews

*Remarks.*  
INCREASES.  
Coal, down ... ... ... ... Mds. 3,52,760 Rs. 51,210  
C. & N. down increased despatches downwards, chiefly to Calcutta.

Ordnance stores	... ...	Mds. 6,160	Rs. 21,810
This arises at Howrah, and consisted of a large quantity of ammunition despatched to Rawalpindi.			
Wheat	... ...	Mds. 11,45,160	Rs. 5,86,390
Gunny	... ...	Mds. 55,980	Rs. 52,890
The large export of country produce during the month led to an extensive enquiry for bagging.			
Piece goods	... ...	Mds. 55,640	Rs. 40,640
Improved demands in the Tirhoot and North-West districts will account for the larger despatches this year.			
Railway materials (Foreign)	... ...	Mds. 1,31,950	Rs. 95,570
Consignments for the Patna-Barni Railway to Bankaghata, to Benares for the Oudh and Rohilkund Railway, and to Cawnpore for the Furrakabad line make up the increase this year.			
Seeds	... ...	Mds. 2,73,440	Rs. 1,31,750
Very large exports of oilseeds from Calcutta are reported during the month of May.			
Sugar	... ...	Mds. 23,930	Rs. 4,840
Increases appear at Patna, Benares, Mirzapur and Cawnpore.			

## DECREASES.

Beer, Commissariat	... ...	Mds. 15,770	Rs. 18,110
This fluctuates a good deal.			
Coal, upwards	... ...	Mds. 81,870	Rs. 32,170
Decreases are shown against Asansol, Seetarampur, and Barakar in weight and receipts, and against Giridi in weight also.			
Rice	... ...	Mds. 34,040	Rs. 31,210
The demand in Calcutta has been unusually slack.			
Pulses	... ...	Mds. 68,000	Rs. 23,010
The exports from some stations to Howrah were not large.			
Iron	... ...	Mds. 7,390	Rs. 15,020
There does not appear to have been any but normal demands for first class iron, while the despatches of machinery, second class, fell off also.			
Construction material	... ...	Mds. 12,09,050	Rs. 32,390
The doubling of the line between Buxar and Moghalserai has been completed.			
Salt	... ...	Mds. 49,790	Rs. 28,770
The following statement will explain where the falling off has arisen.			

## Salt Traffic during five weeks ending 26th May 1883.

STATIONS,	Increases.		Decreases.	
	Mds.	Rs.	Mds.	Rs.
Howrah	520	260	27,470	11,800
Bhadreswar	550	20	.....	.....
Bhagalpur	2,030	910	.....	.....
Patna Ghat	.....	.....	780	550
Dinapur	.....	.....	450	80
Delhi	.....	.....	3,100	1,070
Via Barhghat	.....	.....	14,390	3,550
Via Agra, R. M. Railway	.....	.....	33,130	9,880
Via ditto, S. S. Railway	.....	.....	210	470
Agra	34,040	.....	.....	2,310
Via Delhi, R. M. Railway	.....	.....	6,720	900
Via Jubbulpur	.....	.....	.....	.....
Total	37,140	1,400	86,510	30,140
Net Decrease	.....	.....	49,370	28,740

Stone Mds. 22,240 Rs. 7,020

This decrease is at Luckees rai in rubble stone for ballasting roads, &amp;c., and operations were temporarily suspended owing to employment of carriage in more important traffic.

The train mileage for the period has been, excluding maintenance and locomotive coal train mileage—

	Coaching.	Goods.	Total.
	Rs.	Rs.	Rs.
1883	3,22,446	7,15,897	10,38,343
1882	2,58,985	5,22,116	7,81,101
Increase	63,461	1,93,781	2,57,242
Decrease	.....	.....	.....

Earnings per train mile, excluding materials carried on Maintenance and Revenue account—

	Coaching.	Goods.	Total.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
1883	8 11 1	5 9 9	5 0 3
1882	4 1 11	6 2 3	5 7 7
Increase	.....	.....	.....
Decrease	0 6 10	0 8 6	0 7 4

Shunting mileage increase hours 842.

## EAST INDIAN RAILWAY.

*Statement showing the Totals and Increases and Decreases of Staples during five weeks  
ending 26th May 1883.*

STAPLES.	WEIGHT.		AMOUNT.		Net.			
	1882.	1883.	1882.	1883.	Increase.	Decrease.	Mds.	Rs.
Beer, Commissariat	21,800	6,030	21,630	3,520	.....	.....	15,770	18,110
" not Commissariat	4,060	4,340	6,020	6,150	230	140	.....	.....
Betel-nuts and leaves	15,630	17,230	17,740	20,030	1,600	2,910	.....	.....
Boots and shoes	2,240	2,340	3,300	3,330	100	80	.....	.....
Brass and brassware	17,350	16,980	15,460	15,130	.....	.....	370	330
Bricks	2,060	4,370	580	1,020	2,310	440	.....	.....
Coal, up	7,35,740	6,53,870	2,83,930	2,51,790	.....	.....	81,570	32,170
" down	13,24,100	16,76,860	1,85,880	2,37,030	3,52,760	51,210	.....	.....
Copper and copperware	9,291	9,199	13,630	12,530	.....	.....	100	1,100
Cotton	68,910	75,450	81,950	86,930	6,550	4,980	.....	.....
" twist	14,650	12,460	16,020	14,450	.....	2,190	1,570	.....
Dye-wood	8,170	8,580	5,180	5,340	420	180	.....	.....
Empty coopsahs, &c.	11,440	8,930	5,490	5,000	.....	2,510	490	.....
Firewood	42,530	36,440	3,150	2,780	.....	6,090	370	.....
Fruits	11,920	14,600	9,510	9,530	2,680	320	.....	.....
Glass and glassware	7,660	8,090	8,090	8,390	400	300	.....	.....
Ghee and oil	39,550	38,240	43,870	44,790	920	1,810	.....	.....
G. B. T. packages	1,020	970	3,860	3,740	.....	50	120	.....
Government Commissariat stores	14,630	13,260	11,550	10,830	.....	1,370	1,290	.....
Ordnance stores	14,230	20,390	25,620	47,430	6,160	21,810	.....	.....
Barley	1,820	1,200	1,230	70	.....	620	1,160	.....
Oats	33,670	40,430	7,750	10,150	6,760	2,400	.....	.....
RICE, EDIBLE, & PULSES.	4,60,250	4,26,210	1,36,940	1,04,830	.....	34,040	31,210	.....
Rice	10,67,670	22,12,830	4,00,820	9,87,210	11,45,160	5,86,390	.....	.....
Wheat	2,36,840	2,42,870	63,210	58,950	6,030	.....	4,260	.....
Other grains	1,89,560	1,21,560	52,110	29,100	.....	68,000	23,010	.....
Pulses of all kinds	97,430	1,53,410	65,410	1,18,390	55,980	52,890	.....	.....
Gunny	52,630	59,870	34,240	37,330	7,240	3,090	.....	.....
Hides and horns	250	310	200	220	60	20	.....	.....
Indigo	81,240	73,880	74,040	59,020	.....	7,890	15,020	.....
Jaggree	1,71,610	2,30,020	51,930	46,180	58,510	.....	.....	5,750
Lac	28,640	32,690	19,370	23,800	3,960	4,430	.....	.....
Minerals	1,45,630	1,53,080	30,060	32,110	8,050	2,050	.....	.....
Mowah flower	41,880	54,030	4,920	9,480	12,650	4,560	.....	.....
Oil-cakes	21,550	19,810	4,500	4,100	.....	1,640	400	.....
Opium	49,590	46,090	31,650	32,470	.....	820	3,530	.....
Paper	6,440	8,130	9,760	9,990	1,390	230	.....	.....
Piece-goods	1,86,350	2,41,960	2,09,530	2,40,970	55,640	40,640	.....	.....
Railway materials, Construction account	15,08,550	2,09,590	38,730	6,340	.....	12,09,050	32,390	.....
Roots	38,950	1,70,900	19,990	1,15,160	1,31,950	95,570	.....	.....
Salt	23,130	22,770	16,050	8,430	.....	360	1,620	.....
Salt-petre	6,47,190	5,97,490	1,84,840	1,56,070	.....	49,790	28,770	.....
Seeds	74,990	72,340	37,680	34,350	.....	2,650	3,330	.....
Silk	13,78,570	16,52,010	5,80,490	7,12,240	2,73,440	1,31,750	.....	.....
Spelter	7,490	6,490	10,780	6,060	.....	230	590	.....
Spices	17,540	24,940	11,890	16,600	5,400	4,800	1,900	4,720
Stones	1,22,000	99,760	20,090	12,090	.....	22,240	7,920	.....
Sugar	2,97,680	3,21,610	1,02,740	1,07,580	23,030	4,840	.....	.....
Tea	2,510	4,820	5,200	4,520	2,110	.....	680	.....
Timber	56,090	52,070	14,600	14,170	.....	4,020	430	.....
Tobacco	1,00,410	97,940	54,120	59,760	.....	5,550	2,470	.....
Turmeric	15,350	14,370	5,310	5,400	.....	980	110	.....
Wines	5,790	5,410	12,290	11,190	.....	380	1,010	.....
Miscellaneous	1,96,860	2,11,670	1,72,190	1,72,730	14,810	540	.....	.....
Total	97,35,290	1,04,01,630	32,42,770	40,49,780	21,96,420	10,23,860	15,20,080	2,16,850

URBAN BROUGHTON, Off. Traffic Manager.

## Report on Fluctuation of Traffic on the Tirhoot State Railway for the month of May 1883

THE total quantity of goods carried during the month of May 1883 aggregated maunds 3,00,831 as compared with maunds 3,36,372 carried during the corresponding period of 1882, and maunds 3,27,604 carried during the previous month, shewing decreases of maunds 35,541 and maunds 26,773 respectively.

Of the several increases and decreases, the following are the most prominent ones and worthy of special explanations:—

## INCREASES.

Food-grains	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	Mds. 2,866
This traffic is chiefly rice from Durbhunga and other stations on the Branch Line, and the increase is due to the demand for foreign markets.							
Piece-goods	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	Mds. 2,892
This is due partly to the extensions of the line and partly to this being the last of the auspicious months for the Hindoo marriages.							
Salt	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	Mds. 3,283
The stocks in the local markets having been exhausted owing to the small quantity imported last month, merchants had to buy extensively to meet local demands.							
Seeds	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	Mds. 12,656
This increase is due partly to the extensions of the line, partly to the high rates ruling in Calcutta, and partly to the fear of a block on the East Indian Railway.							

## DECREASES.

Coal	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	Mds. 24,030
Owing to the contractors for the extensions of this Railway having burnt nearly all the bricks and ballast they require.							
Hides and horns	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	Mds. 2,789
Falls off in the hot weather, and decreases probably due to the weather being more favourable for cattle than usual at this time of the year.							
Iron	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	Mds. 4,505
Due to small quantity of machinery having been imported by planters during the month.							
Lime and kunker	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	Mds. 11,607
Owing to the completion of the civil buildings at Durbhunga and of the extensions of the line.							
Railway materials	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	Mds. 25,248
The decrease in this commodity is due to the completion of the three extensions of this Railway.							
Tobacco	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	Mds. 1,298
This is probably due to there not being a sufficient number of locomotives on the line to convey all traffic away that was brought in daily.							

## TRAFFIC DEPARTMENT.

Statement showing Increases and Decreases in Maundage of principal Staples carried over the Line during the month of May 1883 as compared with the corresponding period of 1882.

STAPLES.	1883.		1882.		Total.		Increase.	Decrease.
	Up.	Down.	Up.	Down.	1883.	1882.		
Coal	32,343	200	56,573	... ...	32,543	56,573	... ...	24,030
Food-grains	1,402	25,534	19,551	5,130	27,256	24,390	2,866	... ...
Ghee	... ...	703	683	1,301	703	1,984	... ...	1,281
Gunny-bags (empty)	2,448	639	2,396	4 5	3,087	2,811	276	... ...
Hides and horns	2	2,596	38	5,339	2,588	5,377	... ...	2,789
Indigo	... ...	... ...	10	... ...	10	... ...	... ...	10
Iron	3,702	81	8,078	210	3,783	8,288	... ...	4,505
Lime and kunker	4,101	... ...	15,606	12	4,101	15,708	... ...	11,607
Piece-goods	16,244	86	13,361	77	16,330	13,438	2,892	... ...
Railway materials	23,096	10,091	60,100	3,935	38,787	64,035	... ...	25,248
Salt	32,451	2,018	28,764	2,422	34,469	31,86	3,283	... ...
Saltpetre	... ...	14,527	668	12,099	14,527	13,066	861	... ...
Seeds	752	49,887	221	37,772	50,639	37,983	12,666	... ...
Topaceo	320	31,813	2	33,429	32,183	33,431	... ...	1,298
All other Woods	21,840	18,036	13,623	13,868	39,885	27,492	12,393	... ...
Total	1,44,310	1,56,521	2,19,444	1,16,928	3,00,831	3,36,372	35,247	70,768
					3,00,831			
					Net decrease	35,541		... ...

W. E. HARRIS, Traffic Superintendent.

## Calcutta and South-Eastern State Railway.

*Statement showing Increases and Decreases in maundage of Staples carried over the line during the month of June 1883, as compared with the corresponding period of June 1882.*

STAPLES.	1882.		1883.		1882.	1883.	Increase.	Decrease.
	Up.	Down.	Up.	Down.	Total.	Total.		
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
Building materials	...	...	8,151	...	1,122	8,151	1,122	7,029
Railway materials	...	...	1,655	7,621	122	9,276	122	9,154
Coal	...	...	...	...	1,690	...	1,690	...
Firewood	...	...	37,282	...	34,360	37,282	34,360	2,922
Hay	...	...	7,540	...	11,100	7,540	11,100	3,560
Straw	...	...	2,880	...	1,138	3,315	2,880	4,453
Wooloo	...	...	1,080	...	860	1,680	860	1,573
Rice	...	...	12,687	...	28,103	12,687	28,103	820
Paddy	...	...	2,282	...	1,384	2,282	1,384	908
Sundries	...	...	840	5,333	1,551	5,893	4,193	3,251
Total	...	66,846	19,125	78,496	12,142	85,971	90,638	20,823

## INCREASE.

Mds.

## Coal

This increase is due to coal being required for the working of the Rice-mills at Canning on a larger scale than the previous year.

## Hay

This increase is due to favourable market.

## Straw

This increase is due to greater demands at selling stations.

## Rice

This increase is due to mills at Canning working on a larger scale than the previous year, and exports of rice from Hogra Hat.

## Sundries

This increase is due to exports and imports of miscellaneous goods to and from the extension.

## DECREASE.

Mds.

## Building materials

This decrease is due to works for the extension coming to close.

## Railway materials

This decrease is due to completion of the extension.

## Firewood

This decrease is due to less import of firewood at Canning and Basra stations for the roughness of the river.

## Wooloo

This decrease is due to unfavourable market.

## Paddy

This decrease is due to less demand at the selling stations.

R. G. MOOKERJEE, Manager.

## Nalhati State Railway.

*Statement showing Increases and Decreases in maundage of Staples carried over the line during the month of June 1883, as compared with the corresponding period of June 1882.*

STAPLES.	1882.		1883.		1882.	1883.	Increase.	Decrease.
	Up.	Down.	Up.	Down.	Total.	Total.		
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
Silk and silk cloth	...	...	521	6	478	521	484	37
Edible grains	...	...	951	2,175	1,118	1,041	3,126	2,159
Brass and bell-metal ware	...	...	102	55	190	25	157	58
Sugar and Jaggree	...	...	1,289	...	770	...	1,289	770
Piece-goods	...	...	1,640	...	1,783	...	1,640	1,783
Cotton	...	...	724	...	766	...	724	42
Seeds of all sorts	...	...	2,061	...	4,386	...	2,061	4,366
Revenue stores	...	...	540	678	496	68	1,218	564
Sundries	...	...	3,442	2,032	5,667	2,868	5,474	6,495
Coal	...	...	1,367	...	2,035	...	1,367	2,035
Salt	...	...	2,023	...	2,268	...	2,023	2,268
Jute	...	...	...	...	4,748	...	4,748	4,748
Total	...	14,159	5,461	17,865	9,228	19,600	26,593	9,177

## INCREASE.

Mds.

## Seeds

The increase is due to high rate in the local market.

## Jute

This increase is due to want of sufficient water in the river Bhagirath which carries the traffic; also high rate in the Calcutta market.

## DECREASE.

Mds.

## Edible grains

The decrease is due to low rate in the Calcutta market.

## Sugar and Jaggree

The decrease is due to low rate.

## Revenue stores

This decrease is due to no ballast being carried by ordinary train.

R. G. MOOKERJEE, Manager.

Calcutta, the 16th July 1883.

## Weekly Return of Traffic Receipts on Indian Railways.

## EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 7th July 1883 on 1,509 miles open.

	COACHING TRAFFIC.		MERCHANTISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TOTAL TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	206,542	2,24,420 14 0	26,36,512 30	8,16,637 4 0	10,746 7 11	10,60,804 9 11	63,467	176,815 1	246,282 1
Or per mile of railway ...	.....	148 11 7	.....	541 2 10	13 1 4	702 15 9	.....	.....	.....
For previous week of half-year ...	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total for 1 week ...	206,542	2,24,420 14 0	26,36,512 30	8,16,637 4 0	10,746 7 11	10,60,804 9 11	63,467	176,815 1	246,282 1
<b>COMPARISON.</b>									
Total for corresponding first 6 days of previous year ...	190,322 1	2,13,781 14 7	23,52,983 0	6,53,503 5 6	12,266 5 1	8,79,641 9 2	56,235	123,044	179,279
Per mile of railway corresponding period of previous year ...	.....	141 14 2	.....	433 12 5	8 2 3	583 12 10	.....	.....	.....
Total to corresponding date of previous year ...	190,322 1	2,13,781 14 7	23,52,983 0	6,53,503 5 6	12,266 5 1	8,79,641 9 2	56,235	123,044	179,279

## EASTERN BENGAL RAILWAY

Approximate Return of Traffic for last 14 days of June 1883 on 206 1/4 miles open.

	COACHING TRAFFIC.		MERCHANTISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TOTAL TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	113,375	69,383 0 0	5,07,725 0	98,736 0 0	27,014 0 0	1,95,133 0 0	16,158 1	1,326 1	28,785 1
Or per mile of railway ...	548	335 9 5	2,456 0	477 9 0	130 10 7	943 13 0	.....	.....	.....
For previous 24 weeks of half-year ...	1,350,759	8,43,457 0 0	71,00,331 0	14,01,164 0 0	16,395 0 0	23,51,018 0 0	167,292 1	212,737	380,029 1
Total for half year ...	1,464,134	9,12,840 0 0	76,98,056 0	15,89,900 0 0	43,409 0 0	25,46,149 0 0	183,451	225,363 1	408,814 1
<b>COMPARISON.</b>									
Last 13 days of 1882 ...	82,432	55,626 0 0	5,64,759 0	95,982 0 0	18,832 0 0	1,70,440 0 0	10,942 1	12,123 1	23,070 1
Per mile of railway corresponding week of previous year ...	479	323 14 0	3,288 10	558 13 6	109 10 4	992 5 11	.....	.....	.....
For the half year ...	1,215,677	7,93,883 0 0	65,65,879 0	11,19,212 0 0	43,120 0 0	19,56,215 0 0	154,457	179,853 1	334,315 1

## EASTERN BENGAL RAILWAY.

Approximate Return of Traffic for week ended 7th July 1883 on 206 1/4 miles open.

	COACHING TRAFFIC.		MERCHANTISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TOTAL TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	- 67,673	34,144 0 0	1,95,094 0	38,163 0 0	143 0 0	72,450 0 0	8,051 1	6,400 1	14,452 1
Or per mile of railway ...	327	165 2 4	943 24	184 9 4	0 11 1	330 6 9	.....	.....	.....
For previous 24 weeks of half-year ...	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total for 1 week ...	67,673	34,144 0 0	1,95,094 0	38,163 0 0	143 0 0	72,450 0 0	8,051 1	6,400 1	14,452 1
<b>COMPARISON.</b>									
Total for first 8 days of July 1882 ...	66,238	33,967 0 0	2,13,823 0	31,002 0 0	377 0 0	65,346 0 0	8,820 1	8,424 1	15,251
Per mile of railway corresponding week of previous year ...	386	197 12 4	1,245 0	180 8 1	2 3 2	380 7 7	.....	.....	.....
Total to corresponding date of previous year ...	66,238	33,967 0 0	2,13,823 0	31,002 0 0	377 0 0	65,346 0 0	8,820 1	8,424 1	15,251

Includes Rs. 247 on account of Revenue stores.

## EASTERN BENGAL RAILWAY COMPANY.

Bengal Central Railway Approximate Return of Traffic for last 14 days of June 1883. Miles open Total. { Ranaghat Section 20 1/4 } 35 { Dum-Dum, 14 }

		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week—									
Ranaghat Section ...	66,91	1,747 0 0	36,407 0	347 0 0	13 0 0	2,107 0 0	590	572	1,162
Dum-Dum do. ...	13,330	1,829 0 0	421 0	8 0 0	15 0 0	1,852 0 0	1,193 1	601	1,254
Or per mile of railway—									
Bansghat Section ...	204	84 3 1	1,754 22	16 11 7	6 10 0	101 8 8	.....	.....	.....
Dum-Dum do. ...	935	128 5 7	29 1	0 9 0	1 0 10	129 15 5	.....	.....	.....
For previous weeks of half-year—									
Ranaghat Section (24) ...	65,520	10,752 0 0	5,93,269 0	6,858 0 0	196 0 0	26,806 0 0	5,663	8,198	13,561
Dum-Dum do. (11) ...	1,56,212	10,752 0 0	24,044 0	214 0 0	102 0 0	11,068 0 0	6,404 1	230 1	6,641
Total for half-year—									
Ranaghat Section ...	71,611	21,490 0 0	5,55,676 0	7,205 0 0	209 0 0	28,913 0 0	6,253	8,779	15,023
Dum-Dum do. (12) ...	109,542	12,581 0 0	24,165 0	222 0 0	117 0 0	12,920 0 0	7,598 1	296 1	7,895
Total of both Sections ...	241,153	34,080 0 0	5,83,141 0	7,427 0 0	326 0 0	41,833 0 0	13,851 1	9,066 1	22,918

*Bengal Central Railway Approximate Return of Traffic for week ended 7th July 1883.*

	COACHING TRAFFIC.		MERCHANTISH AND MINERAL TRAFFIC.		Other earnings (estimated.)	Total earnings.	TOTAL TRAIN-MILES RUN.		
	Number of Passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week—			Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.		
Ranaghat Section ...	2,748	743 0 0		18,745 0	100 0 0	11 0 0	854 0 0	277 $\frac{1}{2}$	303 $\frac{1}{4}$
Dum-Dum ...	7,016	814 0 0		452 0	37 0 0	10 0 0	861 0 0	559 $\frac{1}{4}$	67 67
Or per mile of railway—									626 $\frac{1}{4}$
Ranaghat Section ...	132	35 12 11		963 15	4 13 1	0 8 6	41 2 6	.....	.....
Dum-Dum ...	492	57 1 11		31 29	2 9 7	0 11 3	60 6 9	.....	.....
For previous weeks of half-year—									
Ranaghat Section ...	.....	.....		.....	.....	.....	.....	.....	.....
Dum-Dum ...	.....	.....		.....	.....	.....	.....	.....	.....
Total for week—									
Ranaghat Section ...	2,748	743 0 0		18,745 0	100 0 0	11 0 0	854 0 0	277 $\frac{1}{2}$	303 $\frac{1}{4}$
Dum-Dum ...	7,016	814 0 0		452 0	37 0 0	10 0 0	861 0 0	559 $\frac{1}{4}$	67 67
Total of both Sections ...	9,764	1,557 0 0		19,197 0	137 0 0	21 0 0	1,715 0 0	837	370 $\frac{1}{2}$
									1,207 $\frac{1}{2}$

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

*Weekly Statement of Traffic Receipts.*

The latest return received.	Length open.	RECEIPTS FOR WEEK ENDING		TOTAL RECEIPTS FROM 1ST JANUARY		Total increase in 1883.	Total decrease in 1883.	Percentage of increase or decrease.
		10th June 1882.	9th June 1883.	To 10th June 1882.	To 9th June 1883.			
7th July 1883	50	Rs. A. P. 4,973 10 9	Rs. A. P. 10,381 4 10	Rs. A. P. 1,51,043 15 6	Rs. A. P. 1,64,093 9 11	Rs. A. P. 13,049 10 5	Rs. A. P. .....	+ 8 $\frac{1}{2}$

Calcutta, the 4th July 1883.

GILLANDERS, ARBUTHNOT &amp; CO., Agents.



SUPPLEMENT TO  
The Calcutta Gazette.

WEDNESDAY, JULY 25, 1883.

OFFICIAL PAPERS.

*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.*

CONTENTS.

Page.	Page.		
RESOLUTION on the Administration Report of the Commissioners for making improvements in the Port of Calcutta for the year 1882-83 .....	1107	METEOROLOGICAL Report of the Province of Bengal for the week ending 20th July 1883 .....	1132
Special Scholarships created by the Government of Bengal at the Royal Agricultural College, Cirencester .....	1114	Statement of Rainfall in Bengal for the week ending Friday (6 p.m.), the 26th of July 1883 .....	1134
Scholarships and Prizes for Mahomedan Students .....	1116	Statement showing the results of the Registration of Births and Deaths in the First Class Municipalities in Bengal during the week ending 7th July 1883 .....	1140
Annual Administration Report of the Naraingunge Municipality for the year 1882-83 .....	ib.	Results of the Meteorological Observations taken at the Alipore Observatory from 15th to 21st July 1883 .....	1142
Statement showing Haifati, Weather, and State and Prospects of the Crops in the different districts of Bengal as reported to Government during the week ending the 14th July 1883 .....	1123	Results of the Thermometrical Observations taken at the Meteorological Office, Chowingnee, from 15th to 21st July 1883 .....	1143
Prices-current of Food-grains, Firewood, and Salt in the districts of Bengal for the Fortnight ending 15th July 1883 .....	1126	Report on the Fluctuation in Traffic on the Northern Bengal State Railway for the month of June 1883 .....	1144
Wholesale Prices-current of Food-grains, Firewood, and Salt in the undermentioned Marts of Bengal for the Fortnight ending 15th July 1883 .....	1130	Report of Fluctuation of Traffic on the Eastern Bengal Railway for the month of April 1883 .....	15.
		Weekly Return of Traffic Receipts on Indian Railways	1146

RESOLUTION ON THE ADMINISTRATION REPORT OF THE COMMISSIONERS FOR MAKING IMPROVEMENTS IN THE PORT OF CALCUTTA FOR THE YEAR 1882-83.

GENERAL DEPARTMENT—MARINE—CALCUTTA PORT TRUST.

*Calcutta, the 24th July 1883.*

RESOLUTION.

READ—

The Administration Report of the Commissioners for making Improvements in the Port of Calcutta for the year 1882-83.

The usual statement of the liabilities and assets of the Trust are furnished at the beginning of the Report, but the total amount of the debt has not been correctly shown. The debt due on account of the debenture loan of 1881 is obviously the full amount of the loan, and not that amount minus the contributions to the sinking fund established for its liquidation, inasmuch as the sinking fund has been credited as an asset of the Trust. The sinking fund rightly appears in the statement of assets, and credit should not be taken for it in the debt statement also. Subject to this correction, the figures of the report show that the Port Trust commenced the year with a total debt of Rs. 79,27,830, consisting of Rs. 51,62,830 due to Government on account of the consolidated repayable debt, of Rs. 17,65,000, the non-payable book-debt, and of Rs. 10,00,000, the debenture loan raised in 1881. During the year the consolidated debt was reduced by the fixed annual payment on account of sinking fund, but another loan of 20 lakhs was contracted for new works, of which

Rs. 12,25,000 were actually received by the Commissioners before the 31st March, and the total debt on that date stood thus—

	Rs.
Consolidated repayable debt due to Government	... 50,67,967
Port book debt not repayable ...	... 17,65,000
Debenture loan of 1881 ...	... 10,00,000
Due on debenture loan of 1883 ...	... 12,25,000
<b>Total</b> ...	<b>90,57,967</b>

The assets of the Trust, on the other hand, exclusive of the value of the foreshore and Strand Bank lands, which the Commissioners received free of cost from the Government in 1870, amounted on the same date to Rs. 1,47,28,018. This sum represented the value, according to capital expended, of the Jetties, Wharves, Tramway, Moorings, Ships, Boats and other property belonging to the Trust, and the investments of the Jetty Reserve, the Jetty Insurance, the Port Reserve, the Depreciation and the Debenture Loan Sinking Funds. The addition made to the value of all the Trust property during the year amounted to Rs. 12,94,412.

2. After opening with the account of the present financial condition of the Trust summarised in the last paragraph, the Report proceeds to mention the various works in progress during the year, and to describe the working of the several branches into which the management of the Port is divided, but it furnishes no review of the total income and expenditure of the year, either on revenue or capital account, and the general financial results of the twelve months' administration can only be gathered by reference to the figures given in the various sections or in the appendices. A statement of the total income and expenditure of the year, on both revenue and capital accounts, with such explanatory remarks as may be necessary, would, the Lieutenant-Governor thinks, add to the completeness of the report, and he hopes that this will find a place in future reports. For the past year it appears that the total receipts on capital account, inclusive of a balance of Rs. 6,53,199 from the previous year, were Rs. 39,25,042, and that the expenditure amounted to Rs. 29,09,862, leaving a balance of Rs. 10,15,180. The revenue accounts show a total income of Rs. 31,82,162, inclusive of a balance of Rs. 6,71,018 at the commencement of the year, against a total expenditure of Rs. 27,45,523, a sum of Rs. 4,36,639 being thus left in hand at the end of the year.

3. The expenditure on new works during the year amounted to Rs. 13,29,626, of which the Jetties absorbed Rs. 5,31,914, the Inland Vessels' Wharves Rs. 43,135, the Tramway Rs. 1,95,942, the Howrah foreshore road Rs. 96,374, the reconstruction of the riverside Press-house, burnt down in February 1-82, Rs. 1,41,899, new vessels for the Port approaches Rs. 2,46,292, and miscellaneous works Rs. 74,070. Of the outlay on the Jetties,  $4\frac{3}{4}$  lakhs were expended on the extension of the jetty embankment, the building of new warehouses and the provision of additional engines and boilers for working the hydraulic cranes. The expenditure on the Inland Vessels' Wharves was mainly incurred for the construction of timber jetties for two Mills situated on the bank, and that on the Tramway for fresh rolling-stock and extensions of the lines and sidings. The new vessels purchased for the Port approaches were a steamer, costing Rs. 2,30,181, required for service at the Sandheads and for the River Survey, and a steam launch. The construction of the Howrah foreshore road is advancing, but progress has been a good deal impeded by the failure of contractors to carry out their engagements, and by the difficulty of getting the occupiers of the lands taken up to remove and allow work to proceed. The section of the road between the Seebpore ghât road and Shalimar point, and an extension of 1,500 feet to Tateepara ghât road, have now been completed, and three out of the four timber depôts which formed part of the design of the former portion have been rented out and occupied by timber merchants. Among other works, the only one calling for notice is the reclamation of a strip of low ground at Kasipore which has been undertaken to provide for an extension of the Tramway. As surplus land which may be rented to private persons will be available after provision for the requirements of the Tramway, the work is likely to prove remunerative.

4. The total Jetty receipts during the year were higher than those of any previous year, except 1877-78, when unusual activity prevailed in the grain traffic on account of the Madras famine. It is satisfactory to notice that the increase has taken place entirely on account of the larger quantity of goods shipped and landed, and in spite of the reduction of the landing charges on piece-goods and twist to 4 annas per bale as compared with  $4\frac{1}{2}$  and 5 annas charged before the 1st April 1882. The total income for the year amounted to Rs. 7,74,230 against Rs. 7,68,047 in 1881-82, and the expenditure to Rs. 6,44,032 against Rs. 5,47,861, leaving a net income of Rs. 1,30,198 as compared with Rs. 2,20,186 in 1881-82. The increase of expenditure in the past year was mainly due to the payment of a far larger contribution than in the previous year from this head of revenue to the Port approaches, the contribution being needed to make up for the reduction of port dues from three annas to one anna per ton, which came into operation from the commencement of the year. The extent to which the Jetties have been used in the past three years is shewn in the following statement:—

PERIOD.	Number of jetties.	Number of vessels accommodated.	Registered net tonnage.	Total number of days occupied at all jetties.	Total amount contributed by vessels for use of jetties.	Average length of stay at jetties.	Average number of days each jetty was at work throughout the year.	Average amount paid by each vessel for use of jetties.	Total jetty receipts from imports and exports.	Average per vessel.	Average tonnage of vessels.
1880-81	8	193	824,187	1,982	73,762	10'2	248	382	7,14,189	3,700	1,690
1881-82	8	212	361,636	2,013	78,865	9'9	263	372	7,53,074	3,552	1,706
1882-83	8	199	375,907	2,161	77,672	10'8	270	390	7,58,233	3,810	1,889

Of the total income of the past year Rs. 6,63,162 were contributed by imports and only Rs. 95,121 by exports. The balance consisted of miscellaneous receipts. Notwithstanding the increase in the quantity of goods shipped and landed, the removal and warehousing charges fell off by nearly Rs. 20,000, the loss being attributable to the greater promptitude with which goods can now be removed, owing to the abolition of the customs duties. This is a clear gain to the mercantile community.

The floating 30-ton crane was under steam for 155 days of the year and earned Rs. 24,256, or about Rs. 4,000 more than in the previous year. The expenditure amounted to Rs. 12,661, and a net surplus of Rs. 11,595 was obtained.

5. As in the case of the Jetties, the receipts at the Inland Vessels' Wharves, exclusive of the income from the Tramway, were the largest realised in any year except 1877-78, amounting to Rs. 4,07,133 against Rs. 3,81,937 in the previous year. The closing of the Chitpore Lock of the Circular Canals throughout the year, which caused a larger number of boats to resort to the wharves, doubtless contributed a good deal to this result. The expenditure was, however, largely increased, chiefly in consequence of a contribution of Rs. 90,000 to the Port approaches as compared with only Rs. 38,507 in 1881-82, and the net revenue accordingly amounted to only Rs. 1,11,383 against Rs. 1,58,007.

6. A decline of over Rs. 10,000 in the receipts from the Strand Bank Lands is accounted for by the destruction by fire of the Commissioners' riverside press in February 1882, which necessitated the grant of considerable remissions of rent to the tenants while the press was under reconstruction. The total income amounted to Rs. 1,47,089 against Rs. 1,57,472 in the previous year, and the net revenue, after payment of all charges, was Rs. 25,192 against Rs. 45,913.

7. An increase in the number of vessels visiting the Port during the year caused a considerable addition to the income of the Harbour Masters' Department, which was further swelled by unusually high receipts under the head of "Wreck and Anchor," and by the realization, for the first time, of fees for the services of the Engineer-Surveyor, who arrived from England in June 1882, and is now attached to the staff of the Port Commissioners. The Wreck and Anchor receipts included payments on account of the wreck *Ellen Stuart* and of the American ship *Valiant*, which caught fire and was stranded, but was subsequently floated and discharged by the assistance of the Harbour Masters'

Department. The total income from all sources was Rs. 5,97,873 against Rs. 4,81,872 in 1881-82; but the expenditure also increased from Rs. 4,61,468 to Rs. 5,87,812, and the net revenue thus amounted to only Rs. 10,061 against Rs. 20,404 in the previous year. Larger payments on account of fees earned by the Harbour Masters, a charge of Rs. 12,484 for the salary and passage money of the Engineer-Surveyor, and a contribution of Rs. 98,000 to the Port approaches, account for the excess in the expenditure of the year.

8. The increase which has taken place in the number and tonnage of vessels frequenting the Port within the past five years is shewn in the following statement. Dhoonies, country craft, inland steamers, flats and boats are not included.

YEARS.	ARRIVALS.									DEPARTURES.								
	Number.			Gross tonnage.			Net tonnage.			Number.			Gross tonnage.			Net		
	Steamers,	Sailing vessels,	Total,	Steamers,	Sailing vessels,	Total,	Steamers,	Sailing vessels,	Total,	Steamers,	Sailing vessels,	Total,	Steamers,	Sailing vessels,	Total,	Steamers,	Sailing vessels,	Total,
1878-79	400	478	967	896,933	531,837	1,430,789	583,535	531,857	1,115,392	507	493	1,000	926,956	554,029	1,480,085	601,791	554,029	1,155,8
1879-80	442	454	896	845,564	567,416	1,415,979	551,872	551,141	1,103,013	434	461	895	845,016	575,425	1,420,441	548,659	560,058	1,105,7
1880-81	506	478	984	1,069,662	570,817	1,579,868	660,213	554,333	1,220,546	510	505	1,015	1,014,483	616,788	1,631,271	609,856	598,969	1,268,7
1881-82	601	473	1,074	1,243,689	564,335	1,808,995	829,983	547,416	1,377,399	597	461	1,058	1,272,401	541,623	1,774,066	822,07	525,320	1,847,5
1882-83	619	532	1,151	1,342,213	620,078	1,982,157	886,886	621,455	1,510,344	619	522	1,131	1,345,105	634,002	1,979,107	389,144	618,315	1,504 4

It will be observed that, while the number of sailing vessels which arrived in each of these years has remained almost stationary, except in the past year, when there was an unusual increase, the number of steamers shews a considerable and steady rise. Of the steamers arriving in the past year 208, with an average tonnage of 2,862 tons, came from European ports *vid* the Suez Canal, while in 1870-71 there were only 51 such arrivals with an average tonnage of 1,598 tons.

The development of the shipping trade is further exhibited in the following interesting statement, which goes back to the commencement of the present century:—

Year.																		
1801	...	...	...	...	...	...	...	...	...	...	...	...	224	86,336				
1811	...	...	...	...	...	...	...	...	...	...	...	...	240	97,686				
1821	...	...	...	...	...	...	...	...	...	...	...	...	271	112,729				
1831	...	...	...	...	...	...	...	...	...	...	...	...	256	96,439				
1840	...	...	...	...	...	...	...	...	...	...	...	...	612	208,000				
1845	...	...	...	...	...	...	...	...	...	...	...	...	688	255,000				
1850	...	...	...	...	...	...	...	...	...	...	...	...	876	369,000				
1855	...	...	...	...	...	...	...	...	...	...	...	...	1,097	647,581				
1859-60	...	...	...	...	...	...	...	...	...	...	...	...	814	590,631				
1864-65	...	...	...	...	...	...	...	...	...	...	...	...	1,206	997,756				
1869-70	...	...	...	...	...	...	...	...	...	...	...	...	806	757,208				
1874-75	...	...	...	...	...	...	...	...	...	...	...	...	927	1,280,604				
1879-80	...	...	...	...	...	...	...	...	...	...	...	...	8.6	1,415,979				
1880-81	...	...	...	...	...	...	...	...	...	...	...	...	9.4	1,579,868				
1881-82	...	...	...	...	...	...	...	...	...	...	...	...	1,074	1,808,905				
1882-83	...	...	...	...	...	...	...	...	...	...	...	...	1,151	1,982,187				

9. Ten casualties occurred to ships while in charge of Harbour Masters during the year, fault being found with these officers in three cases, but in no instance was the damage done of a very serious nature. The percentage of accidents was, however, somewhat higher than in the preceding year, being '86 against '65.

10. The fire-engine *Hooghly* was fortunately less frequently required than in the previous year, when several large and destructive fires occurred in the Port and along the banks of the river. It was called out ten times, but was actually used in only six cases, in five of which it was able to render useful service. The most serious of the fires broke out at the Camperdown Jute Press and the Chitpore Hydraulic Press, causing much loss at both places.

The dredger was employed on 181 days of the year at a net expenditure of Rs. 23,035, the average cost of every 1,000 cubic feet dredged being Rs 18.33. The Lieutenant-Governor observes from Appendix A to the report that all the

moorings in the port have been seen to by the Deputy Conservator and Harbour Master, and from Appendix B that the Port Approaches have been made the subject of careful examination by Lieutenant Petley. The report by this officer shows that a great deal of good work has been turned out in the charts and tracings published and issued to Port Officers and Pilots. To make this portion of the report complete, some information is needed regarding the portion of the river forming the port itself. Many works of importance are being executed on both banks, and it would seem desirable that the effect (if any) which these works have on the river should be recorded and reported for the information of Government. The Lieutenant-Governor would direct the attention of the Commissioners to the subject, and hopes that it may be noticed in future reports.

11. The number of cargo and passenger boats surveyed, registered, and licensed, and of manjees licensed, was as follows:—

		1882-83.	1881-82.
Cargo boats	...	5,942	5,643
Passenger "	...	2,148	2,145
Manjees licensed	...	9,431	8,527

A reduction of one-fourth of the rates of fees charged to these boats was sanctioned by the Government during the year, and has since taken effect.

The work done by the Engineer-Surveyor is stated in an appendix to the report. The substance of this statement, and of the reports of the Harbour Master and of the Deputy Conservator of the Port Approaches, might with advantage be summarised in the report in future. The number of vessels of all kinds surveyed during the year was 131, the total number of visits paid to them by the Surveyor was 398, and the fees realised were Rs. 3,970. In addition to this work, the Surveyor measured 11 vessels for tonnage; surveyed and passed the condensers of 16 emigrant ships; surveyed and measured for certificates 48 native passenger steamers, and held miscellaneous surveys on 16 vessels. His total earnings, however, fell far short of the expenditure incurred by the Port Commissioners in carrying out the surveys. Various questions connected with this branch of their administration have lately been brought to the notice of Government by the Commissioners, in reporting on the two Bills now before the Legislature for regulating surveys of inland steam-vessels and sea-going steam-ships respectively, and their views will be communicated to the Government of India.

12. The working of the Commissioners' Tramway appears to have been entirely satisfactory during the year. The receipts amounted to Rs. 1,60,549, against Rs. 1,35,812 in 1881-82, and the expenditure to Rs. 1,16,091, against Rs. 97,672, and the net revenue thus rose from Rs. 38,140 to Rs. 44,458. The quantity of goods received and despatched through to the Eastern Bengal Railway reached 209,430 tons, and 15,201 wagons were also loaded and despatched on local traffic. The corresponding figures for the previous year were 188,030 tons and 11,448 wagons.

13. The income and expenditure on account of the Port approaches, inclusive of the River Survey, Buoying, and Lighting establishments, were as follow:—

<i>Income.</i>		<i>Expenditure.</i>	
	Rs.		Rs.
Receipts from port dues	... 98,817	Salaries	... 1,86,939
Contribution from Port Trust re- venue.	3,07,500	Working expenses	... 1,38,335
Other receipts	... 17,252	Repairs	... 99,102
Total	... 4,23,569	Other charges	... 11,993
		Total	... 4,36,369

The only direct income available to meet the expenditure for the Port approaches is derived from the port dues, and these, owing to the reduction of the rate from three annas to one anna, now yield less than a lakh of rupees per annum, while the expenditure approaches  $4\frac{1}{2}$  lakhs. The balance has accordingly to be supplied by contributions from the receipts of the Port proper.

14. The usual surveys of the river channels were carried out during the year, and a revenue survey party was also employed on the bank, for the purpose of connecting the permanent marks of the river survey with the great trigonometrical stations, and filling in the shore detail between Calcutta and Saugor. Some important changes were noticed in two or three of the channels leading to the Port, but no obstruction was apparently caused to navigation. The depth of water over the James and Mary bar is reported to have been unusually low in February and March last, owing to very weak freshets.

The light-houses at Saugor, Cowcolly, and False Point appear to have been efficiently maintained during the year, and the six light-vessels were all brought up to town and repaired. An extensive encroachment of the Middleton Spit in the Saugor Roads rendered the placing of a light-ship on the spot advisable, and this was promptly done by the Commissioners. Special distinguishing marks for the day have also been introduced for the different light-vessels, and machinery has been ordered from home for the purpose of giving to each of the three outer lights a distinctive feature, which would render its immediate identification possible at night. The present system of burning blue lights and rockets at various intervals causes delay in the identification of the lights, unless they are first sighted shortly before the rockets or blue-lights are used. The whole question of lighting the mouth of the river has recently formed the subject of a special report by the Commissioners.

The refuge houses on the sea face of the Sunderbuns, the duty of maintaining which has been accepted by the Commissioners, were visited three times in the course of the year. On each occasion it was found that the provisions and clothing supplied for the needs of ship-wrecked seamen had been systematically stolen, and the trap-doors even had been taken off or destroyed. Exception appears to be made by the depredators as regards potted and tinned meats, which they do not affect probably from ignorance of their uses and inability to open the tins. It may be as well experimentally to adopt the suggestion of the Deputy Conservator that the food supplies should be limited to these articles. The more frequent inspection of the places of refuge, which the two new steamers to be imported from England will facilitate, may tend to the better security of the goods and possibly to the detection of the offenders.

15. In the last section of the report, the Commissioners notice under the head of "Miscellaneous subjects" various important questions which came under their consideration during the year. The Diamond Harbour dock scheme was referred to them for opinion in communication with the Chamber of Commerce, and a joint Committee, including three members of the Chamber, has been appointed by them, and is now deliberating on the measures practicable for extending the accommodation of the port. The Lieutenant-Governor recognizes that some delay must occur before matured proposals can be submitted on so large a subject, but its great importance in the interests of the export trade of the port and the pressure on the East Indian Railway Company demands early attention. The Lieutenant-Governor notes that the Commissioners recognise the urgent necessity of increased facilities for meeting the rapidly growing traffic "either in Calcutta itself or elsewhere."

16. The opposition with which the Commissioners' proposal to construct additional warehouses within the Jetty enclosure was received by the Calcutta Municipality, the British Indian Association, and other public and private bodies, was noticed in the Resolution on the last report. The warehouses were eventually sanctioned by the Government, and are now in course of construction. It is expected that one will be shortly finished, and the other before the close of the current year.

Objection was similarly taken to the erection of a tea warehouse by the Commissioners, but the Lieutenant-Governor being satisfied that the project would be of great benefit to the tea trade generally, sanctioned the introduction of a short Act in the last session of the Bengal Council to enable the Commissioners to undertake the work, and the measure has since received the assent of His Excellency the Governor-General in Council. The project will now be undertaken.

17. The experiment of opening the Jetty gates between 8 and 10 A.M. to facilitate the removal of goods, which was introduced at the instance of the Chamber of Commerce, having proved a failure, owing to the unwillingness

of the agents of consignees and shippers to commence work before 10 o'clock, the Commissioners have reverted to the latter opening hour. They were quite justified, in the Lieutenant-Governor's opinion, in abandoning an arrangement of which no use was made.

18. An important step taken by the Commissioners during the year, with sanction of the Government, was the purchase of the Calcutta Docking Company's premises situated immediately to the north of the Hooghly Bridge. The possession of a dock for the exclusive use of the Commissioners' vessels and boats had become an urgent necessity, especially since the transfer to the Commissioners' charge of the Port approaches, with the light-ships and the vessels of the River Survey. At the same time, in view of the limited docking accommodation existing in Calcutta, the Lieutenant-Governor approves of the intimation conveyed to the Chamber of Commerce that if at any time hereafter the dock is unoccupied by vessels belonging to the Commissioners, and an outside vessel is in urgent need of docking and cannot find accommodation elsewhere in the Port, the Commissioners would be disposed to assist the shipping of the Port by making their dock available. The opening of the dock to the public under such circumstances could give no reasonable ground for complaint that the Commissioners were entering into a competition with private docks.

19. In reply to a reference from the Government, regarding the improvement of the means of conveyance on the river for persons residing on the banks and having business in Calcutta, the Commissioners reported during the year that, in their opinion, the establishment of a service of small steamers, to ply at low fares between Calcutta and places in the neighbourhood, would probably prove a remunerative undertaking. The starting of such a service appeared to the Lieutenant-Governor to be beyond the legitimate sphère of Government enterprise, but he is glad to learn that it has since been undertaken by a private firm, and is likely to be soon established with every prospect of success. If this should result, the extension of the scheme to the reaches of the river above the bridge will probably follow.

20. The Lieutenant-Governor desires to thank the Commissioners for their efficient administration during the year, and he anticipates that they will be able to render valuable co-operation in the large projects under consideration for the extension of the commercial interests of the Port.

By order of the Lieutenant-Governor of Bengal,

A. P. MacDONNELL,

*Offg. Secretary to the Government of Bengal.*

**SPECIAL SCHOLARSHIPS CREATED BY THE GOVERNMENT OF  
BENGAL AT THE ROYAL AGRICULTURAL  
COLLEGE, CIRENCESTER.**

The following correspondence is published for general information:—

No. 37 (Revenue), dated India Office, London, the 24th May 1883.

**TO HIS EXCELLENCE THE MOST HONOURABLE THE GOVERNOR-GENERAL  
OF INDIA IN COUNCIL.**

MY LORD MARQUIS—Referring to your Excellency's Financial letter No. 193 of 22nd July 1881 (Accounts and Finance), I have to inform you that Babu Ambika Charan Sen, M.A., and Syud Sakhawut Hossein, B.A., the first scholars selected for the agricultural scholarships created in 1880 by the Bengal Government, have completed their course at the Cirencester College and have obtained the diploma with very high honours. From the

Memorandum by Mr. Fitzgerald, April 27th 1883.

Letter from the Principal, Cirencester College, April 20th 1883.

Testimonial by the Professor of Chemistry, April 20th.

the list in the final examination. I have no doubt an opportunity will soon be found of utilising the qualifications of these gentlemen.

**MEMORANDUM.**

I HAVE the honour to forward herewith, for submission to the Secretary of State, a report from the Principal of the Royal Agricultural College at Cirencester, upon the two Bengal Government students, Ambica Charan Sen, M.A., and Syud Sakhawut Hossein, B.A., who obtained their diploma at the College during the past week.

I need not refer in detail to the different points mentioned in the report, but it is worthy of remark that, while the two Bengal students passed out 1st and 3rd, Mr. Ozanne, of the Bombay Civil Service, Director of the new Agricultural Department in that Presidency, being second, their qualifications as shewn by the examinations were very different. Mr. Sen proved himself to be a scientific agricultural chemist and analyst of no mean order. Mr. Hossein, on the other hand, obtained his high position on the list from his practical knowledge of farm and stock management. I cannot imagine a happier omen for the success of the experiment so wisely instituted by the Government of Bengal, and for the future of agriculture in India.

I was at Cirencester on the occasion of the diplomas being conferred, and may be permitted to add, on the authority of the Professor of Botany, that Mr. Sen would have obtained distinction in that branch of study also had he taken it up as an extra subject. He was urged to do so, and was only prevented by his natural modesty and diffidence from entering for a subject which he considered too wide for a man of his age and experience. I was also greatly gratified at the relations which I was told had existed between Mr. Ozanne and Mr. Sen. They had worked together in the laboratory throughout, conducting their experiments in common, with the result of a mutual respect for each other's capabilities and enthusiasm in the investigations they were pursuing.

The Secretary of State will further be pleased to learn that, in the opinion of the College authorities, Mr. Sen's and Mr. Hossein's success was not due to mere cram for an examination, but that both men have a sound knowledge of the subjects in which they passed. The importance to Government of having available in India highly qualified men for employment in the new Agricultural Departments is shown by the late correspondence with reference to the appointment of Mr. Hill to the Professorship of Agriculture at the proposed College at Cawnpore. In the Government of India despatch of 7th November 1882, it is explained, as the reason for the selection of Mr. Hill, that Mr. Buck, when in England, had made enquiries at Rathansstead and elsewhere for a fit person to be "employed under the Government of India as *Agricultural Chemist and Examiner of Soils*, but being satisfied that no person of the required attainments was available, left the selection to Sir James Caird." The reference to Sir James Caird was presumably with a like result, as enquiries were afterwards instituted in India, but "no one was found until Mr. Hill was independently recommended through the Local Department of the North-West Provinces as an excellent official for the instruction of Natives in science connected with Agriculture."

The rate of pay had then to be fixed which, according to the despatch of the 26th of May (there being nobody else available) was done, not upon the value to Government of the work to be performed, but in view of promotion he (Mr. Hill) "might expect to obtain in his present department."

This difficulty need not again arise, as in Mr. Sen and Mr. Hossein Government have available for employment at a much lower rate of salary men as well, or according to their respective certificates and the tests they have gone through, better qualified for the particular work required. Nor in the future will the selection be restricted to these two men, as there are already five more Government students at the College, who, according to

the class lists, are likely to prove efficient and highly qualified officers, if not quite as distinguished as Mr. Sen. Should the present policy be pursued, even without extension, two more will be added to the number in each year.

G. S. V. FITZGERALD.

Dated 20th April 1883.

From—JOHN B. McCLELLAN, Esq., M.A., Principal, Royal Agricultural College, Cirencester,

To—G. S. V. FITZGERALD, Esq., India Office.

I HAVE the honour specially to report that the first two Bengal students sent to this College with Bengal Government scholarships, viz. Ambica Charan Sen, M.A., and Syud Sakhawut Hossein, B.A., have now concluded their course at the College, and passed the final examination for the College Diploma, which was conferred upon them on the 18th instant, the last day of spring session.

Both students have throughout their course exhibited exemplary diligence and conduct, and obtained a well-deserved popularity among their English fellow students. The class lists of the College are evidence that they have uniformly obtained the highest places in their class examinations, and they have now obtained the diploma with very high honours. Mr. Sen obtaining 1,670 marks out of a maximum of 1,800, and Mr. Hossein 1,595, the civilian, Mr. E. C. Ozanne (appointed Director of Agriculture for Bombay), coming between with 1,602, notwithstanding that the examination is now more thorough and severe than in former years. Mr. Sen's marks are the highest ever obtained at the College.

The Final Examination for the diploma being mainly in all branches of Agriculture and Agricultural Chemistry (embracing the practical department of analysis, soils, manures, feeding stuffs, &c., as well as other matters), the marks above recorded testify to the high qualifications of both students, and the valuable results which have accrued and are likely further to accrue from the project of the Bengal Government.

I enclose a special testimonial from the Professor of Chemistry, and have much pleasure in begging permission to recommend both students to the favourable notice of the Government for Agricultural employment. Mr. Sen, if the Government approve, for educational work, and Mr. Hossein for State management or direction. I have every confidence that they will prove very useful servants.

Chemical Laboratory, Royal Agricultural College, Cirencester, 20th April 1883.

I HAVE much pleasure in testifying that Mr. A Charan Sen and Mr. Syud S. Hossein have, during the last two years, studied practical chemistry in this laboratory. They are both of them exceedingly careful, conscientious and painstaking students, and have acquired considerable manipulatory skill both in qualitative and quantitative analysis, this in conjunction with their knowledge of general and of agricultural chemistry (clear evidence of which is given in the positions they have attained in their several classes in the College curriculum) renders them fully competent to undertake the analysis of soils, manures, and agricultural produce generally, and to draw trustworthy conclusions from such analysis. Mr. Sen is specially competent and has shown much enthusiasm and zeal in his study of chemistry while here. He came with a good grounding in theoretical and inorganic chemistry, and he is now spending his remaining time in England in increasing his experience by a special course of instruction in water and gas analysis at Owen's College.

EDWARD KINCH, F. I. C., F. C. S., &c.,  
Professor of Chemistry.

## SCHOLARSHIPS AND PRIZES FOR MAHOMEDAN STUDENTS.

GENERAL DEPARTMENT—*Education.**Calcutta, the 24th July 1883.*

IN continuation of the Resolution published in the *Calcutta Gazette* of the 27th June 1883, the following list of subscriptions to the Ripon Scholarship Fund, founded by the National Mahomedan Association, is published for general information:—

	Rs.
Prince Mahomed Farrukh Shah, President, National Mahomedan Association ...	1,000
Haji Noor Mahomed, Vice-President ...	1,000
Mr. Mahomed Ali Rogay ...	500
Nawab Welayet Ali Khan Bahadoor, C.I.E. ...	400
Haji Abdulla Dugman ...	250
Haji Syed Sadiq Shustari... ...	200
Moulvi Syed Amir Hossain Khan Bahadoor, Vice-President ...	100
Mr. Ameer Ali ...	100
Hon'ble Moonshi Mahomed Yusuf ...	100
Syed Tajjummul Hossain Khan ...	100
Yusuf Hossain Khan ...	100
Other subscriptions ...	560
Total ...	4,410

A. P. MACDONNELL,  
*Offg. Secretary to the Govt. of Bengal.*

## ANNUAL ADMINISTRATION REPORT OF THE NARAINGUNGE MUNICIPALITY FOR THE YEAR 1882-83.

No. 469L, dated Dacca, the 25th June 1883.

From—N. S. ALEXANDER, Esq., Officiating Commissioner of the Dacca Division,  
To—The Secretary to the Government of Bengal, Municipal Department.

I HAVE the honour to submit herewith in original the Annual Administration Reports of the Dacca and Naraingunge first-class municipalities for the year 1882-83, with enclosures, and copies of the Magistrates' letters forwarding them, and to make the following remarks with regard to each. The Naraingunge Municipality has now for the first time been brought under class I.

\* \* \* \* \*

## NARAINGUNGE MUNICIPALITY.

Naraingunge Municipal Report.  
Heading III, Government Circular  
No. 26.

Heading VII.

It has been pointed out that it should be made (if at all) the subject of a special reference and report.

13. Act VI referred to in this section is one of the Bengal Council (the Latrine Act). It has been so recently introduced that the results of its working cannot as yet be reported on.

14. An application was, since the close of the year, made to Government, but, pending the enactment of the new law relating to municipalities, the consideration of the application has been postponed (*vide* Government No. 2661—M, dated 4th May 1883).

15. During the past nine months very great improvements have been effected. I who have known Naraingunge during the past 15 years hardly recognized the place when I visited it last in January 1883; in the place of a small dirty village, buried in dense, matted jungle, full of filthy ponds, with narrow, muddy foot-ways, it is now open in all directions down to the riverside, with broad roads intersecting it in all directions; many fine buildings have been

and are being erected; solid quays and landing-places are being constructed, and the whole place has the air of a thriving trading centre with rapidly increasing business.

Heading VIII. 16. The water of the Lakhya is specially pure and wholesome.

No. 1273, dated Dacca, the 5th June 1883.

From—A. W. PAUL, Esq., Offg. Magistrate of Dacca,  
To—The Commissioner of the Dacca Division.

I HAVE the honour to submit herewith a report on the administration of the Naraingunge Municipality for 1882-83, in accordance with the instructions contained in Government Circulars No. 26, dated 26th November 1881, and No. 10 of the 4th April 1882, together with a certificate from the Agent of the Bank about the closing balance of the municipality as required by the Government Circular No. 4494, dated 28th September 1878. The discrepancy between the Bank and the Municipal accounts has been explained in paragraph 2 of the Chairman's letter No. 30, dated 27th ultimo.

2. Forms I and II, showing income and expenditure of the municipality, will follow.

No. 30, dated Naraingunge, the 27th April 1883.

From—F. GRANT, Esq., Chairman of the Municipality, Naraingunge,  
To—The Magistrate of Dacca.

I HAVE the honour to submit herewith a report on the administration of the Naraingunge Municipality for the year 1882-83.

2. A certificate of balance, as required by the Government Circular No. 4494 of the 28th September 1878, is herewith submitted. The discrepancy of Rs. 48-12 between the Bank and the Municipal accounts is owing to the amount having been realized on the 31st March and entered in the municipal account, but not remitted into the Bank.

I HEREBY certify that the balance at credit of the Chairman, Municipal Commissioners, Naraingunge, on the 31st March 1883, was rupees ten thousand seven hundred and sixty-nine annas twelve and pies seven (Rs. 10,769-12-7) only.

R. T. HORSFORD,

*Acting Agent.*

BANK OF BENGAL, DACCIA,  
The 19th April 1883

Paragraph 3, Circular No. 10.—The receipts during the year under report amounted to Rs. 17,152-9-5, as per details given below:—

SOURCES OF INCOME.	For the year 1881-82.		For the year 1882-83.		Increase.	Decrease.
	R.	A. P.	R.	A. P.		
1. Tax collection	10,261	0 3	15,837	11 6	5,576 11 3	....
2. Fines	256	7 0	297	4 0	40 13 0	....
3. Pound collection	155	9 0	258	11 3	103 2 3	....
4. Miscellaneous	270	10 0	758	14 8	488 4 8	....
Total	10,943	10 3	17,152	9 5	6,208 15 2	....

*Tax collection.*—The tax levied during the year previous to that under review was on persons occupying holdings under clause (a), section 77 of the Act. The increase of Rs. 5,576-11-3, as compared with the actual figure of the previous year, was effected by a careful assessment being made, and by the tax being levied under clause (b) of the said section. As example, the holding No. 123 used to pay a tax of Rs. 36 per annum under clause (a), while under clause (b) it has to pay Rs. 120 yearly.

*Fines.*—The increase under this head is due to higher fines having been imposed during the year.

*Pound collection.*—The reason of the increase under this head is due to more cattle having been impounded.

*Miscellaneous.*—The increase under this head is owing to an increase of Rs. 50 in the rent paid by Messrs. Ralli Brothers, Rs. 48 increase in fishing-fees, and Rs. 347 refunds from police, &c.

*Expenditure.*—The expenditure during the year amounted to Rs. 11,227-6-4 as shown below:—

ITEMS OF EXPENDITURE.	For the year 1881-82.	For the year 1882-83.	Increase.	Decrease.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Office establishment	1,2'3 2 2	1,351 8 0	138 5 10	.....
Conservancy	960 5 0	3,848 5 0	2,888 0 0	.....
Police	2,925 0 0	211 10 3	.....	2,713 5 9
Lighting	156 13 0	20 4 6	56 7 6	.....
Construction of roads	1,530 0 0	352 0 9	.....	1,177 15 3
Watering roads	148 0 0	48 0 0	.....	100 0 0
Water-supply	288 3 9	.....	.....	288 3 9
Drainage works	.....	681 6 6	681 6 6	.....
Repair of houses	802 14 9	207 9 0	.....	95 14 9
Other public works	.....	1,410 0 0	1,410 0 0	.....
Sanitary and charitable	865 11 9	1,815 14 0	450 2 3	.....
Vaccination	41 6 6	27 10 9	.....	13 11 9
Education	690 0 0	778 0 0	188 0 0	.....
Printing charges	.....	101 0 0	100 0 0	.....
Miscellaneous	427 9 10	705 10 7	278 0 9	.....
Total	9,446 2 9	11,227 6 4	6,170 7 10	4,389 3 3

*Office establishment.*—The increase under this head is principally caused by Rs. 100 paid for audit.

*Conservancy.*—The conservancy establishment was appointed in July, and their pay causes the large increase under this head.

*Police.*—The amount shown under this head as expenditure appears as a credit under the head of "Miscellaneous," being part of the Rs. 347 referred to as refunds.

*Lighting.*—The increase under this head is due to the appointment of an extra lamp-lighter at Rs. 3 per month.

*Construction of roads.*—The amount shown for 1881-82 was spent for the construction of a new road, but this year no new road was made. The roads were repaired only at a cost of Rs. 352-0-9.

*Watering roads.*—The decrease under this head is owing to the number of bhisties having been less by two than in the previous year.

*Water-supply.*—The amount shown for 1881-82 was balance due for the construction of a pukka ghât at Lyall's Tank, and no expenditure under this head was incurred this year.

*Drainage works.*—The amount shown under this head in the year under report was spent for the construction of pukka side drains to the Nitaigunge and Bhugwangunge roads.

*Repairs of houses.*—The decrease under this head is due to less repairs being necessary this year.

*Other public works.*—The amount shown under this head was expended for the partial construction of a pukka burning ghât.

*Sanitary and charitable.*—The increase under this head is due to the establishment of a branch dispensary at Madangunge.

*Vaccination.*—During the year 1881-82 a vaccinator was employed for three-and-a-half months, while during this year he was employed only for two-and-a-half months, and hence the decrease.

*Education.*—The reason of the increase under this head was owing to the increase of the subscriptions to the schools by Rs. 15 per month.

*Printing charges.*—Hitherto nothing had been expended under this head, but this year Rs. 100 was expended for printing forms, &c.

*Miscellaneous.*—The gratuity of six months' pay given to a tehsildar was included in this head. The amount of Rs. 200 was spent for fees and other charges of the vakeels to defend the case against the municipality.

*Paragraph 4, Circular 10.*—The Municipal Committee consists of 15 Commissioners, viz, four official, including the Chairman, and nine non-official. Twelve meetings were held during the year, and the following table will show the attendance of the Commissioners at each of the meetings held:—

4th April 1882	... { Mr. A. J. Fraser, <i>Chairman</i> . " H. F. Wilson, <i>Vice-Chairman</i> . Baboo Bissesswar Dass. " Mahim Chunder Ganguli.
26th May 1882	... { Mr. A. J. Fraser. " H. F. Wilson. Baboo Bissesswar Dass.

		Mr. A. J. Fraser. " G. A. Glascott. Baboo Bissesswar Dass. " Gobinda Chunder Taluqdar. " Mathura Nath Ghosal. " Mahim Chunder Ganguli. " Ram Krisna Pal.
22nd June 1882	...	Mr. A. J. Fraser. Baboo Ram Krisna Pal. " Mahim Chunder Ganguli. " Mathura Nath Ghosal. " Bissesswar Dass.
29th July 1882	...	Mr. A. J. Fraser. Baboo Bissesswar Dass. " Ram Krisna Pal. " Mathura Nath Ghosal. " Kali Narain Sen.
17th October 1882	...	Mr. A. J. Fraser. Baboo Bissesswar Dass. " Madhub Lall Chowdhry. " Ram Krisna Pal. " Mathura Nath Ghosal.
2nd November 1882	...	Mr. A. J. Fraser. " H. F. Wilson. " G. A. Glascott. " R. Sim. Baboo Ram Krisna Pal. " Bissesswar Dass. " Kali Narain Sen. " Mathura Nath Ghosal.
5th December 1882	...	Mr. G. A. Glascott. Baboo Madhub Lall Chowdhry. " Bissesswar Dass. " Ram Krisna Pal. " Kali Narain Sen. " Mathura Nath Ghosal.
2nd January 1883	...	Mr. G. A. Glascott. " H. F. Wilson. " R. Sim. Baboo Bissesswar Dass. " Kali Narain Sen. " Mathura Nath Ghosal. " Ram Krisna Pal.
16th January 1883	...	Mr. G. A. Glascott. " H. F. Wilson. " R. Sim. Baboo Mahim Chunder Ganguli. " Bissesswar Dass. " Mathura Nath Ghosal. " Gobinda Chunder Taluqdar.
23rd January 1883	...	Mr. A. W. Paul. " G. A. Glascott. " H. F. Wilson. " R. Sim. " J. Geannocopulo. " W. B. Bestie, <i>Executive Engineer</i> . Baboo Madhub Lall Chowdhry. " Mahim Chunder Ganguli. " Bissesswar Dass. " Mathura Nath Ghosal.
24th February 1883	...	Mr. F. Grant. " H. F. Wilson. " R. Sim. " C. D. Geannocopulo. Baboo Bissesswar Dass.
20th March 1883	...	

The elective system is not in force in this municipality.

No Ward Committee here.

*Paragraph 6, Circular 10.*—There are five Honorary Magistrates. These sit in rotation with a Stipendiary Magistrate every first and third Monday for disposal of municipal cases. The number of cases brought to trial was 107; in these cases 191 persons were convicted and 4 acquitted. The amount of fines inflicted and realized was Rs. 296-4.

*Paragraph 7, Circular 10.*—The tax levied during the year was on the annual value of holdings under clause (b), section 77 of the Act, instead of clause (a) of the section as in the previous years. The assessment was revised in the month of February last. The increase of Rs. 5,576 to the income of the municipality was affected by this alteration or revision made in the mode of assessment.

*Paragraph 8, Circular 10.*—The provisions of the Act regarding the taxing of carriages and of horses and other animals, and the registration of carts, are not in force in this municipality. The Act VI of 1878 was not in force during the year.

*Paragraph 9.*—No change or alteration of the municipal boundary was made during the year.

*Paragraph 10.*—No grants from any provincial or local funds were made.

*Circular No. 26.* I.—The municipality was established on the 8th September 1876.

II.—The population of the municipality taken at the last census was 12,508, but that census was taken in the month of April, when trade is almost at a stand-still. Had the census been taken at any time during the jute season, the figure would have been very different. Further, since the year 1881 a very large increase in the trade of this place has taken place, and a consequent increase in population.

III.—The gross income from all sources, from the date of establishment of the municipality to the end of the year 1882-83, was Rs. 75,928-13-11, including a balance of Rs. 4,157-12-6 from the previous year—

	Rs. A. P.
(a) Direct taxation	... ... ... 69,225 15 6
(b) Indirect ditto	... ... ... .....
(c) Miscellaneous	... ... ... 2,545 1 11
Total	<hr/> 71,771 1 5
Add balance at the end of 1875-76	... 4,157 12 6
Grand Total	<hr/> 75,928 13 11

The incidence of taxation last year was only 11 annas per head as against annas 20-595. This year the great increase is owing to the change in the form of taxation. Formerly the tax on holdings was in force. This form of taxation was most unjust, as it allowed the wealthy inhabitants to escape; and the present system of levying the tax on the annual value of holdings enables the Commissioners to relieve many poor and to collect from the rich their proper share of taxation. As an illustration of this, one European firm here paid under the holdings clause Rs. 221-4 annually, while under the valuation clause they pay Rs. 2,073. On a collection at the rate of 6 per cent., the incidence per head is calculated on the population as shown by last census, which, however, is quite erroneous—*vide* clause 11.

The average population cannot be under 17,000, which would make the incidence of taxation annas 15,141 per head.

IV.—The gross expenditure was Rs. 65,110-5-2 at the end of March 1883—

	Rs. A. P.
(a) Establishment and contingencies (office, collection, &c.)	... ... ... 10,692 15 10
(b) Sanitary establishment (vaccination, &c.)	... 17 1 3
(c) Public Works (latrine, market and dispensary)	... 10,373 14 9
(d) Public Works (general roads, lighting, watering and burning ghât)	... 22,334 3 6
(e) Repairs—(a) roads, (b) buildings	... 2,096 15 3
(f) Education	... 3,398 0 0
(g) Police	... 16,097 2 9
Total	<hr/> 65,110 5 4
Balance on the 31st March	... 10,818 8 7
Grand Total	<hr/> 75,928 13 9

This large balance, carried over, is due to the non-completion of works budgetted for, the payment on account of which will be made this year.

V.—No loans.

VI.—The municipality possesses two tanks—one at Madangunge, the other at Narain-gunge. The latter known as Lyall's Tank yields a rent of Rs. 250 per annum, the water

being taken by Messrs. Ralli Brothers for the use of the engines working in their press houses. A burning ghāt is being constructed at Gog Char, a distance of about half a mile from the town. The income annually derivable therefrom is estimated to be Rs. 100.

VII.—The town a few years ago consisted of about one mile of straggling houses on the western bank of the river Lakhya and a half mile on the eastern bank at Madangunge. It now extends a distance of two to two-and-a-half miles on the eastern bank, and three to three-and-a-half miles on the western bank, the river frontage on both sides being occupied by business premises. There are 13 hydraulic presses employed in baling jute for the English market. These during this last season have turned out 400,000 bales equal to 20 lakhs of maunds. There are two steam-presses and a large number of hand-screws occupied in preparing bales for the Calcutta market, in addition to the trade done in jute in drums.

There is a steam ginning factory and a large trade is done in ginning cotton by the native *churka* in the surrounding districts, this place being the centre of the trade.

Instead of formerly having only a comparatively small steamer weekly, we have this past year had a daily despatch steamer, and an average of three large steamers weekly carrying jute and other produce to Calcutta, in addition to a large trade between this and Chittagong carried on in native craft.

Roughly estimating the trade as compared with that existing in 1872-73, it may be set down as five times both in imports and exports.

The daily despatch service which was only begun this year is most useful to the commercial community, as it saves a day in replying to important letters, and enables them to get quickly anything urgently required, such as small pieces of machinery which, although of seemingly little importance in themselves, may stop the works of hundreds of men for days. I trust therefore the Government will urge on the Railway authorities the necessity for continuing this service to Naraingunge during the rains, as last year the steamer stopped at Dacca to the great loss and inconvenience of the inhabitants of this place.

The most immediate requirement of this place is "conservancy;" the municipality at their own expense in the past year did a little, and sanction has been given to the introduction of Act VI (B.C.) of 1878. But owing to the apathy of the native inhabitants, and the obstructions of the zemindars, great delay is being caused in the introduction of the Act. Rs. 8,200 has been budgetted this year for the introduction of this Act. The excavations referred to in last year's report still exist, as they are more or less filled with night-soil which has been accumulating for years, they are simply hot-beds of disease. Immediately after Act VI (B.C.) of 1878 is in proper working order, a scheme for the cleansing and improving of these excavations will be considered by the Commissioners. Next to conservancy, "roads" are required. The large wide road known as the western road now nearing completion will, when carried to its natural termination at Shital Lakhya and joined to the old eastern road by cross-roads, supply the requirements of the town on the western bank of the river Lakhya for some time.

It is impossible, however, to lay out these cross-roads till the alterations caused by the construction of the Dacca and Mymensingh Railway are completed. Roads on the eastern bank of the river do not yet exist, and they are much wanted. Plans and estimates will be prepared this year, and I trust the Government may make over the ferries to the municipality and enable the construction of a good road to be begun soon. During the year under review the Public Works Department have cleared away all the old oil-mills at Tan Bazar, and instead of this place being in a chronic state of disgusting filthiness, the land is being properly laid out. A good dāk bungalow has been erected, and Government offices are being built. A portion of the eastern road has been straightened, widened and improved generally.

Consequent on these alterations, three zemindars are erecting bazars, plans for which have been approved of by the Executive Engineer of the district and the municipality, and when these bazars are completed, they will be a great improvement to the town.

VIII.—Water is not supplied to the inhabitants, nor is it necessary, as the river Lakhya runs through the town and supplies all its present requirements.

IX.—There are 19 sweepers under the supervision of a jemadar. At present we have eight night-soil carts and two open carts. The street sweepings are taken away every morning between 5 and 7 o'clock, and are despatched into the ditches far from the main roads and streets. For the year under review, there was no scavenging establishment employed with the exception of two domes, whose duty it was to throw away dead bodies or carcasses that might be washed on shore by the river.

(b). There are at present five public latrines. Two sweepers are told off to each, and the jemadar or the head sweeper goes round every morning to see that they have been properly cleaned. They are cleaned twice a day, between 6 and 7 o'clock in the morning and 5 and 6 in the evening, and are maintained solely by the municipality. The night-soils are deposited in trenches, and the ground where these trenches are is quite out of the town, about half a mile away.

(c). The registration of births has ceased under the Sanitary Commissioner's No. 1026 of the 6th September 1880. The deaths are registered by the Police. The registration area is divided into three circles. As the statistics are collected by the Police, the cost of registering is nil.

(d). A vaccinator on Rs. 12 a month is engaged for four or five months each year, that is from December to March or April.

(e). There are no public markets; six private markets exist at present—four at Narain-gunge, one at Madangunge, and one at Bandar, and a weekly hāt at Sonakanda. The one at

Bhugwanglee in Naraingunge has pukka floor with pukka side drains. The owners of the other bazars have been ordered to make pukka floor and pukka side drains into the markets. All are kept clean.

X.—(a). The length of the metalled road is two miles, and that of ku'cha ones is 10 miles.

(b). There are 35 light-posts—30 at Naraingunge and five at Madangunge. The lights used are common kerosine burners purchased in the bazars and placed in lanterns, the cost for the year under report being Rs. 210-4-6. Provisions have been made in this year's budget for supplying proper lamps to existing lanterns, and also for increasing the number of lamps.

(c). List of municipal buildings—

1. Municipal office	...	...	...	1
2. Dispensary house	...	...	...	1
3. In-door patients	...	...	...	1
4. Cook-sheds	...	...	...	2
5. Native Doctor's dwelling-house	...	...	...	1
6. School houses	...	...	...	2
7. Sweepers' shed	...	...	...	2
8. Cow-shed	...	...	...	1
9. Latrine houses	...	...	...	8
10. Division house	...	...	...	1
		Total	...	20

The annual cost of repairs being Rs. 207.

(d). Roads are watered during the hot season, the annual cost being Rs. 150.

XI.—*Education.*—There are three schools within the limits of the municipality—one at Naraingunge, one at Madangunge, and the other at Bandar—receiving subscriptions of Rs. 38, Rs. 20, and Rs. 10 a month respectively from the municipal fund. The daily attendances of boys at the schools are—

For Naraingunge	...	...	...	...	67
" Madangunge	...	...	...	...	35
" Bandar	...	...	...	...	45

XII.—

XIII.—The average balance now available after payment of all fixed and recurring charges would be Rs. 4,200.

XIV.—The present taxation is six per cent. on an annual valuation of Rs. 2,83,000 for the coming year, and it would not, I think, be wise to increase this for some time, more especially as the increase in taxation, consequent on the introduction of Act VI of 1878 this year, will at first be considered an extra burden. The great increase last year caused a very great discontent.

## Rainfall, Weather, and State and Prospects of the Crops.

*Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different Districts of Bengal, as reported to Government during the week ending the 14th July 1883.*

No.	District, and date of return.	Rainfall at Sudder Station in inches.	Character of the weather, state and prospects of the crops, and state of health at date.
<b>BENGAL.</b>			
<i>Western Districts.</i>			
1	Burdwan, July 21 '83	13.82	Weather—very rainy. Heavy rain during the week at head-quarters has greatly improved the prospects of the crops; rainfall in Cutwa and Culna satisfactory; the prospects of the <i>amun</i> crop are, on the whole, fair; other crops promise well.
2	Bankura, " 21	9.76	Weather—cloudy and rainy. There was good rain during the week throughout the district, which has improved the state and prospects of the crops now growing. Public health good.
3	Beerbohm " 21	10.37	Heavy and frequent showers. Transplanting of rice crop in full progress. Prospects satisfactory. Prices stationary. General health of district good.
4	Rampore Haut " 21	6.04	Weather—cloudy and rainy. Cultivation still going on. Prospects of crops favourable. Public health good.
5	Hooghly, " 21	12.97	Weather—seasonable. Prospects of crops good. General health good.
	Howrah, " 23	3.40*	Weather—cloudy, with rain. Jute nearly ready to cut. <i>Aus</i> rice and sugarcane well up. <i>Amun</i> rice growing. Cholera reported in several localities, but probably other bowel-complaints reported under this name.
	Oolooberia "	5.38	
<i>Central Districts</i>			
6	24-Pergunnahs, July 24 '83	4.3*	Weather—seasonable and rainy. Early crops doing well. Transplanting of <i>amun</i> rice going on briskly in all parts of the district. Prospects good. Public health good.
7	Nuddea, " 21	2.48	Weather—cloudy, rainy and cool. Prospects of crops fair. More rain wanted at Kooshtea. One or two cases of small-pox reported from Karimpore. Mortality from fever decreased considerably this week.
	Kooshtea "	0.9	
	Meherpore "	2.34	
	Chooadanga "	2.67	
	Ranaghat "	8.67	
8	Khoonia, " 21	4.43	Weather—cloudy with frequent rain. Ploughing for <i>amun</i> rice is still in progress. Prospects favourable. Some fever in Satkhira sub-division, but general health good.
9	Jessore, " 21	6.27	Weather—rainy. Heavy rain during the week has done immense good to the rice crop. More rain wanted. General health good.
	Bongong "	4.77	
	Jhenida "	4.73	
	Magura "	7.49	
	Narail "	3.62	
10	Moorshedabad, " 21	5.00	Weather—cloudy and showery with occasional sunshine. Transplanting operations are being pushed on vigorously owing to the recent rain. <i>Aus</i> has been much benefited by the rain. Public health on the whole good.
11	Dinapore, July 20 '83	8.23	Weather—seasonable with high winds at times. Rain much wanted. Cultivation of <i>amun</i> at a stand-still in some places for want of sufficient rain. Prospects of <i>bhadoi</i> fair. Rice selling at from 17 to 27 seers per rupee.
12	Rajshahi, " 21	3.04	A good fall of rain especially at Newgong. Crops doing well. Some fever as usual.
	Nattore "	2.10	
	Newgong "	5.20	
13	Rungpore, " 21	3.26	Weather—seasonable. <i>Aus</i> and jute are being harvested. Prospects of <i>amun</i> and sugarcane good. Cholera reported from some parts of the district. More rain wanted in Sudder and Kurigram sub-divisions.
	Gaibanda "	4.25	
	Kurigram "	1.45	
	Nilphamari "	5.82	
14	Bogra, " 21	7.05	The week has been very wet, as rain fell daily, Monday (16th) excepted. Transplanting of <i>amun</i> paddy is being pushed on. Public health good, but fever is still reported from police station Bogra and outpost Dhunat.
15	Pobna, " 21	3.18	Weather—cloudy, with light showers. Rain has done good to the standing crops; more rain wanted. Rivers still very low. Public health good.
16	Darjeeling, " 22	5.81	Weather—seasonable. All native crops doing well. <i>Murwa</i> and Indian-corn ripening in the hills. There is still some cholera in the Terai and a few cases in the hills.
17	Jarpigoree, " 21	6.87	Weather—seasonable. Rain is falling more continuously. Prospects of crop fair. In some parts of the district jute does not promise well. Public health improving. Cholera abating.
	Couch Behar, " 20	9.98	Weather—hot and close at first, rainy towards end of week. The rain has enabled people to carry on transplanting of late rice. Cutting of early rice continues. Prospects of jute good. Cholera disappearing.
	up to 18th.		
	Dinhatta "	0.85	
	up to 15th.		
	Mathabhangha "	0.77	
	up to 14th.		
	Mecklunge "	0.67	
	up to 14th		
<i>Eastern Districts.</i>			
18	Dacca, July 21 '83	10.54	Weather—rainy with occasional glimpses of sunshine. Sowing of <i>roachia</i> and <i>shail</i> paddy going on. <i>Aus</i> paddy and jute are being cut. Prospects of <i>aus</i> , <i>amun</i> and <i>riga</i> paddy in the Sudder sub-division appear unfavourable owing to the waters having fallen much. A large quantity of jute in the Nawabgunge station has been destroyed by worms. Crops in the low land of Tonghi outpost have been damaged to a certain extent by a sudden rise of water there. <i>Amun</i> paddy, sugarcane, <i>mug</i> and <i>til</i> thriving well.
	Manickgunge "	11.14	
	Munshigunge "	9.90	
	Naraingunge "	12.08	
19	Purreepore, " 21	5.25	Weather—seasonable. The rains appear to have at length begun. State of crops moderate. Prospects improved during the week. Public health generally good.
	Gonlundo "	6.97	
	Medaripore "	9.88	
20	Tuckergunge, " 19	6.10	Weather—rainy. Crops doing well. Public health fair. Cattle-disease prevails in some parts of the Patuakhali sub-division.
21	Myrmensingh, " 20	5.79	Almost continuous and occasionally heavy rain up to 18th. Sky still heavy. <i>Aus</i> and jute crops benefited by the rain, but their outturn will not be good. Fever prevalent in south-east. River's gone down a couple of feet.
	Jamalpore "	3.33	
	Kishoregunge "	3.45	
	Atta "	12.77	
	Netrokona "	6.63	

No.	District, and date of return.	Rainfall at Sudder Station in inches.	Character of the weather, state and prospects of the crops, and state of health at date.
<b>BENGAL.—concl.</b>			
<i>Eastern Districts.—concl.</i>			
CHITTAGONG DIVN.	22 Chittagong July 24 '83	13.28	Weather—seasonable. Prospects of crops fair. <i>Amun</i> doing well. Cattle-disease still reported. General health good. Prices stationary.
	23 Noakholly, " 19 "	13.24	Frequent and sometimes heavy rain occasionally accompanied with, and preceded by, strong southerly wind. <i>Aus</i> paddy ripening. Preparation for transplanting of <i>amun</i> paddy continues.
	24 Tipperah, " 19 Brahmanbaria .. Chandpore ..	13.18 8.06 11.10	Weather—seasonable. State and prospects of crops fair. Jute is being gathered.
	25 Chittagong Hill, " 17 Tracts.	3.42	Weather—excessively close in the first half of week; storms of wind with rain have lowered the temperature. <i>Jum</i> paddy doing fairly well. Lands being ploughed for paddy, and seed beds well advanced. Prospects of sugarcane good.
	Hill Tipperah, " 18 "	8.76	Weather—rainy. <i>Amun</i> paddy still being transplanted. Sugarcane doing well. Public health good.
<b>BEHAR.</b>			
PATNA DIVN.	26 Patna, ..	... ...	Return not received.
	27 Gya July 21 "	6.82	Weather—hot and cloudy with frequent showers. <i>Bhadoi</i> crops and paddy seedlings thriving under favourable weather. Sugarcane and Indian-corn looking remarkably well. Cholera still prevalent.
	28 Shahabad, " 21 Buxar .. Sassaram .. Bhabooh ..	1.77 4.25 1.83 1.10	Weather—seasonable. Crops promising. Cholera and fever reported from Bhabhua.
	29 Durbhunga, " 21 "	2.13	Heavy rain on 18th from the north. Prospects much improved by rain. Transplanting resumed with vigour. Health good. Prices stationary.
	30 Mozuif-rpore, " 21 Hajeeapore .. Seetamurhee ..	4.24 1.58 0.41	Weather—cloudy and showery. The rain has been very favourable both to the growing <i>bhadoi</i> crops and to the transplanting of the <i>aghani</i> rice. Public health fair.
	31 Saran, " 21 Sewan .. Gopalgunge ..	2.51 4.85 3.89	Weather—cloudy and rainy. The rain has done much good to standing crops, and appears to have been general throughout the district. Prospects of <i>bhadoi</i> crops excellent. Manufacture of indigo going on. Public health good. Prices easy.
	32 Chumparun " 21 "	1.16	Weather—hot and cloudy. <i>Bhadoi</i> sowings almost completed. Sowing and transplanting of <i>aghani</i> crops in progress. General health fair.
	33 Moughyr. July 21 '83 Beguserai .. Jamui ..	2.84 2.01 1.39	Weather—hot and showery. <i>Bhadoi</i> crops have germinated well. More rain required for rice. Public health good.
	34 Bhagulpore, " 21 Purneah .. Kissengunge .. Arrareah ..	3.94 2.13 3.41 4.51	Weather—cloudy; cool. Fair rainfall everywhere. Prospects of crops good.
	35 Maldah, " 21 "	7.5	Weather—showery. Prospects of crops fair. Health fair.
BHAGULPORE DIVN.	36 Maldah, " 21 Sonthal Perghs., " 21 Deoghur .. Rajmehal .. Jauntara .. Pakour ..	7.5 6.04 3.23 4.18 5.56 4.91	Weather—cloudy and rainy. Moderate east wind prevailing. The heavy down-pour of this week has done much good to the standing crops. Common rice is selling at 16 seers a rupee. General health fair.
	37 Sonthal Perghs., " 21 Deoghur .. Rajmehal .. Jauntara .. Pakour ..	6.04 3.23 4.18 5.56 4.91	Weather—rainy. The rain has been most beneficial. The <i>bhadoi</i> has improved and transplanting of the <i>aghani</i> crop is being pushed on.
	38 Cuttack, July 20 '83	4.4	Weather—cool and cloudy. <i>Sarud</i> progressing well. <i>Beali</i> being weeded. Sugarcane and cotton doing well. Common rice selling at from 20 to 24 seers per rupee. Public health generally good, with exception of a few cases of cholera in the town.
	39 Pooree, " 19 "	2.90	Weather—cloudy and rainy. Re-sowing going on in some places where the young plants were destroyed by late flood. Prices stationary. Sporadic cases of cholera in town and a few places in the district.
	40 Balasore, " 20 "	1.93	Weather—cloudy and rainy. Ploughing and transplanting going on. Standing crops progressing well. Public health generally good.
<b>ORISSA.</b>			
ORISSA DIVN.	41 Cuttack, July 20 '83	4.4	Weather—cool and cloudy. <i>Sarud</i> progressing well. <i>Beali</i> being weeded. Sugarcane and cotton doing well. Common rice selling at from 20 to 24 seers per rupee. Public health generally good, with exception of a few cases of cholera in the town.
	42 Pooree, " 19 "	2.90	Weather—cloudy and rainy. Re-sowing going on in some places where the young plants were destroyed by late flood. Prices stationary. Sporadic cases of cholera in town and a few places in the district.
	43 Balasore, " 20 "	1.93	Weather—cloudy and rainy. Ploughing and transplanting going on. Standing crops progressing well. Public health generally good.
<b>CHOTA NAGPORE.</b>			
<i>South-West Frontier Agency.</i>			
41	Hazaribagan, July 20 '83	3.03	Weather—cloudy and seasonable. Sowing still continues. General prospects of crops good. Public health good.
42	Lohardugga, " 21 "	5.64	Weather—rainy. Prospects satisfactory; but crops would benefit by sunshine.
	Palamow ..	0.75	<i>Rahar, marua, &amp;c.</i> being sown. Epidemic cholera still prevalent in Husainabad (Palamow). A few cases reported in Jorpa (head-quarters). Prices steady.
43	Singbham, " 20 "	2.27	Weather—seasonable. Moderate rain has fallen all over the district. All crops doing well. Prospects everywhere favourable. General health fair.
44	Manbham, " 21 "	4.45	Weather—rainy and cool. Transplanting of paddy going on. All crops most promising. Public health good.
	Govindpore ..	3.24	

Published for general information.

CALCUTTA, STATISTICAL DEPT.,  
The 17th July 1883.COLMAN MACAULAY,  
Secy. to the Govt. of Bengal.

PRICES CURRENT OF FOOD-GRAINS, FIREWOOD, AND SALT IN THE DISTRICTS  
OF BENGAL FOR THE FORTNIGHT ENDING 15TH JULY 1883.

## PRICES CURRENT of Food-grains, Firewood, and Salt in the

Number.	DISTRICTS.	RETAIL SALE:-QUANTITIES PER RUPEE BY																								
		WHEAT.				BARLEY.				RICE, BEST SOR				RICE, COMMON.				BULRUSH MILLET—CUMBOO, BAJRA.				GREAT MILLET—CHOLUM, JOWAL.				
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	
<b>BENGAL.</b>																										
<i>Western Districts.</i>																										
1	Burdwan ...	A 16 0	16 0	14 0	30 0	20 0	45 0	17 4	18 12	22 0	22 8	23 13	24 8	...	...	...	...	...	...	...	...	...	...	...	...	...
2	Bankura ...	B 14 12	13 12	14 0	16 0	19 0	16 0	19 0	18 8	25 0	25 0	24 0	30 0	...	...	...	...	...	...	...	...	...	...	...	...	...
3	Beerbhoom ...	C 15 12	15 0	13 8	...	...	...	16 8	18 0	18 0	21 0	22 8	24 0	...	...	...	...	...	...	...	...	...	...	...	...	...
4	Midnapore ...	D 14 0	14 0	14 0	17 0	16 0	...	18 0	18 0	20 0	22 0	24 0	24 0	...	...	...	...	...	...	...	...	...	...	...	...	...
6	Hooghly ...	E 13 8	13 8	18 0	...	...	...	10 0	10 0	10 0	18 8	18 8	20 0	...	...	...	...	...	...	...	...	...	...	...	...	...
	Howrah ...	13 4	13 4	13 0	...	...	...	18 8	13 4	16 0	17 8	19 8	19 8	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Central Districts.</i>																										
5	Calcutta ...	F 14 4	14 0	14 0	19 6	20 0	23 2	10 12	10 5	10 0	16 0	16 0	20 0	20 0	20 0	20 0	20 0	20 0	20 0	20 0	20 0	20 0	20 0	20 0	20 0	
6	24-Pergunnahs ...	G 13 5	13 5	12 12	17 8	16 0	22 8	8 0	8 0	10 0	16 0	16 12	18 0	...	...	13 12	...	...	...	...	...	...	...	...	25	...
7	Nuddea ...	H 14 8	14 8	14 8	26 0	...	26 0	15 4	15 4	16 13	17 4	18 13½	20 0	...	...	...	...	...	...	...	...	...	...	...	...	...
8	Khoolna ...	I ...	...	...	...	...	...	16 0	17 0	16 0	24 0	25 0	22 0	...	...	...	...	...	...	...	...	...	...	...	...	...
9	Jessore ...	J 14 8	14 8	16 0	...	...	...	16 0	16 0	18 0	22 12	22 12	22 0	...	...	...	...	...	...	...	...	...	...	...	...	...
10	Moorshedabad ...	K 15 0	15 0	16 0	...	...	...	15 0	15 0	17 12	19 0	19 0	25 0	...	...	...	...	...	...	...	...	...	...	...	...	...
11	Dinapore ...	L 13 14	13 8	11 8	...	...	...	16 0	18 0	21 0	18 13	19 8	26 8	...	...	...	...	...	...	...	...	...	...	...	...	...
12	Rajshahye ...	M 17 4	16 8	{ 13 8 to 16 8 }	30 0	30 0	45 0	{ 15 0 to 16 8 }	{ 13 8 to 16 0 }	{ 18 12 18 0 }	{ 17 4 to 18 0 }	{ 21 0 to 24 0 }	...	...	...	...	...	...	...	...	...	...	...	...	...	...
13	Rungpore ...	N 13 5	11 7	16 0	...	...	...	13 5	13 5	17 0	20 0	17 3	20 0	...	...	...	...	...	...	...	...	...	...	...	...	...
14	Bogra ...	O 15 12	15 0	13 12	...	...	...	12 12	12 0	15 12	21 0	24 0	3 0	...	...	...	...	...	...	...	...	...	...	...	...	...
15	Purnia ...	P 18 12	19 8	18 12	...	...	...	8 0	8 0	10 0	19 8	19 8	25 0	...	...	...	...	...	...	...	...	...	...	...	...	...
16	Darjeeling ...	Q 8 0	8 0	8 0	2 0	8 0	8 0	4 0	4 0	6 0	8 0	8 0	14 0	...	...	...	...	...	...	...	...	...	...	...	...	...
17	Jalpigoree ...	R 10 0	10 0	9 0	20 0	20 0	20 0	12 8	11 8	16 0	16 0	16 0	24 0	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Eastern Districts.</i>																										
18	Dacca ...	S 12 4	12 4	12 4	19 0	18 12	40 0	15 12	15 8	24 0	19 0	19 4	32 0	...	19 0	...	...	...	...	...	...	...	...	...	...	...
19	Furreedpore ...	T 20 0	20 0	22 0	30 0	30 0	35 0	16 0	16 0	22 0	18 0	18 0	24 0	...	...	...	...	...	...	...	...	...	...	...	...	...
20	Backergunge ...	U ...	...	...	...	...	...	19 0	19 0	20 0	21 0	21 0	24 0	...	...	...	...	...	...	...	...	...	...	...	...	...
21	Mymensingh ...	V 11 0	11 8	11 0	...	...	...	15 8	18 0	22 8	19 8	17 8	23 0	...	...	...	...	...	...	...	...	...	...	...	...	...

A In the sub-divisions retail prices of salt are as follow :—Curnia 13½ seers, Cutwa 10½ seers, and Raneegunge 18½ seers.

B In the interior retail prices of salt range from 11 to 15 seers.

C In the interior retail prices of salt range from 9 to 13½ seers.

D In the sub-divisions retail prices of salt are as follow :—Ghatial 14½ seers, and Contai 11 seers.

E In Jehanabad retail price of salt 13½ seers.

F In the sub-divisions retail prices of salt are as follow :—Baraset and Bussirhat 13 seers, Diamond Harbour 10½ seers, Barrackpore 12½ seers and Dem-Dum 12 seers.

G In the sub-divisions retail prices of salt are as follow :—Kooshtea 12½ seers, Meherpore 12 seers, Choosdanga 12½ seers, and Ranaghat 13 seers.

H In Naghat retail price of salt 11 seers.

I In the sub-divisions retail prices of salt are as follow :—Jhenida, Magura and Narail 13 seers, and Bongong 13 seers.

J In the sub-divisions retail prices of salt are as follow :—Leibagan 1 seers, Jungypore 10 seers, and Kaudi 11½ seers.

TO

## THE SERR OF 80 TOLAHS.

LESSER MILLET— RAGI OR MUREWA AND CHENNA.		MAIZ OR INDIAN CORN.		tni		ER	
Present return.	Next preceding return.	Present return.	Next preceding return.	Present return.	Next preceding return.	Present return.	Next preceding return.
S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.
...	...	...	...	...	...	...	...
...	...	...	...	32 0	38 0	34 0	R
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	2

	GRAM.				FIREWOOD.				
	Present return.		Next preceding return.		Present return.		Next preceding return.		
	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	
21	8	22	0	23	0	120	0	120	0
17	12	18	0	18	0	280	0	320	0
21	8	21	0	22	0	160	0	160	0
14	0	16	0	18	0	155	0	155	0
17	0	17	0	20	0	120	0	120	0
16	4	16	8	20	0	80	0	80	0
18	13	17	12	21	5	90	0	90	0
17	8	18	12	18	0	0	0	90	0
20	0	20	0	21	5	...	...	...	...
16	6	16	0	12	0	180	0	180	0
19	12	20	0	18	0	120	0	120	0
23	0	23	0	25	0	120	0	120	0
17	7	17	8	20	0	160	0	160	0
20	10	21	0	{ 22 8 } to { 24 6 }		240	0	240	0
17	3	16	0	15	0	110	0	110	0
18	12	15	12	16	8	69	0	60	0
18	6	17	8	18	12	200	0	200	0
8	0	8	0	8	0	128	0	128	0
16	0	16	0	16	0	128	0	128	0
18	8	18	8	21	0	120	0	100	0
16	0	16	0	12	0	120	0	120	0
18	0	18	0	18	0	120	0	120	0
15	8	15	9	16	0	...	...	...	...

## Districts of Bengal for the Fortnight ending 15th July 1883.

WHOLESALE RICES PER MAUND OF 40 SEERS.												AVERAGE WAGES PER MONTH												DISTRICTS	
SALT.						SALT.						ABLE-BODIED AGRICULTURAL LABOURER.			SYCE OR HORSE-KEEPER.			COMMON MASON CARPENTER, OR BLACKSMITH.							DISTRICTS
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	DISTRICTS	
S. Ch.	S. Ch.	S. Ch.	R. A. P.	R. A. P.	R. A. P.	S. Ch.	S. Ch.	S. Ch.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	DISTRICTS		
12 4	12 4	13 12	3 0 8	3 1 0	2 13 0	7 8	9 6	9 6	6 8	6 8	6 8	{ 10 0	{ 10 0	{ 10 0	{ 10 0	{ 10 0	{ 10 0	{ 10 0	{ 10 0	{ 10 0	{ 10 0	{ 10 0	{ 10 0	Burdwan.	
12 0	12 0	13 0	3 3 6	3 3 6	3 0 0	6 0	6 0	6 0	4 8	4 8	4 8	{ 14 0	{ 15 0	{ 15 0	{ 15 0	{ 15 0	{ 15 0	{ 15 0	{ 15 0	{ 15 0	{ 15 0	{ 15 0	{ 15 0	Bankura.	
10 0	10 0	12 8	3 12 6	3 12 6	3 3 0	to	to	to	to	to	to	7 8	7 8	7 8	7 8	7 8	7 8	7 8	7 8	7 8	7 8	7 8	7 8	Beerbhoom.	
12 8	13 0	13 8	2 14 0	2 14 0	3 0 0	6 1 6	5 10	5 13	6 0	5 8	5 0	{ 7 8	{ 7 8	{ 7 8	{ 7 8	{ 7 8	{ 7 8	{ 7 8	{ 7 8	{ 7 8	{ 7 8	{ 7 8	{ 7 8	Midnapore.	
13 9	13 9	13 9	2 14 0	2 14 0	2 14 0	-6 0	{ 6 0	{ 6 0	{ 6 0	{ 6 0	{ 6 0	{ 10 0	{ 10 0	{ 10 0	{ 10 0	{ 10 0	{ 10 0	{ 10 0	{ 10 0	{ 10 0	{ 10 0	{ 10 0	{ 10 0	Hooghly.	
13 0	13 0	13 0	3 0 0	3 0 0	2 14 0	7 8	7 8	7 8	6 8	6 8	6 8	30 0	30 0	30 0	30 0	30 0	30 0	30 0	30 0	30 0	30 0	30 0	30 0	Howrah.	
Western Districts.																									Central Districts.
14 6	14 0	14 0	2 12 0	2 12 0	2 10 0	15 0	15 0	15 0	10 0	7 0	7 0	7 0	12 0	12 0	12 0	12 0	12 0	12 0	12 0	12 0	12 0	12 0	12 0	12 0	Calcutta.
13 5	13 5	13 5	2 14 0	2 14 0	2 12 0	10 0	10 0	10 0	10 0	6 0	6 0	6 0	{ 15 0	{ 16 0	{ 16 0	{ 16 0	{ 16 0	{ 16 0	{ 16 0	{ 16 0	{ 16 0	{ 16 0	{ 16 0	24-Pergunsha.	
11 10 $\frac{1}{2}$	11 10 $\frac{1}{2}$	12 13 $\frac{1}{2}$	3 0 0	3 0 0	2 14 1	6 0	6 0	6 0	6 0	6 0	6 0	{ 7 8	{ 7 8	{ 7 8	{ 7 8	{ 7 8	{ 7 8	{ 7 8	{ 7 8	{ 7 8	{ 7 8	{ 7 8	{ 7 8	Nuddea.	
10 8	10 8	11 0	3 4 0	3 4 0	3 2 0	{ 9 0	{ 9 0	{ 9 0	{ 10 0	8 0	8 0	{ 6 0	{ 5 0	{ 5 0	{ 5 0	{ 5 0	{ 5 0	{ 5 0	{ 5 0	{ 5 0	{ 5 0	{ 5 0	{ 5 0	Khoolna.	
11 0	10 12	12 8	3 2 0	3 2 0	3 2 0	7 8	7 8	7 8	6 0	6 0	6 0	{ 13 0	{ 10 0	{ 10 0	{ 10 0	{ 10 0	{ 10 0	{ 10 0	{ 10 0	{ 10 0	{ 10 0	{ 10 0	{ 10 0	Jessore.	
10 0	10 0	12 6	3 6 0	.....	3 4 0	5 0	5 0	5 0	5 0	5 0	5 0	7 8	7 8	7 8	7 8	7 8	7 8	7 8	7 8	7 8	7 8	7 8	7 8	Moorshedabad.	
11 6	11 6	12 0	3 7 0	3 7 0	3 4 0	{ 6 0	{ 6 0	{ 6 0	{ 7 0	7 8	7 8	8 0	8 0	8 0	20 0	20 0	20 0	20 0	20 0	20 0	20 0	20 0	20 0	Dinagepore.	
12 0	11 4	12 0	.....	.....	.....	5 0	{ 5 0	{ 5 0	{ 6 0	6 0	6 0	{ 5 0	{ 5 0	{ 5 0	{ 7 0	{ 7 0	{ 7 0	{ 7 0	{ 7 0	{ 7 0	{ 7 0	{ 7 0	Rajshahie.		
11 14	11 14	11 8	3 5 0	3 5 0	3 5 3	7 8	7 8	7 8	6 0	6 0	6 0	{ 12 0	{ 12 0	{ 12 0	{ 12 0	{ 12 0	{ 12 0	{ 12 0	{ 12 0	{ 12 0	{ 12 0	{ 12 0	Rangpore.		
8 10 8	10 8	3 8 0	3 8 0	3 8 0	3 5 4	{ 5 0	{ 5 0	{ 5 0	{ 6 0	6 0	6 0	{ 10 0	{ 12 0	{ 12 0	{ 12 0	{ 12 0	{ 12 0	{ 12 0	{ 12 0	{ 12 0	{ 12 0	{ 12 0	Bogra.		
0 12 0	12 12	3 4 0	3 4 0	3 1 6	3 1 6	{ 6 0	{ 6 0	{ 6 0	{ 7 0	7 8	7 8	11 0	10 0	10 0	10 0	10 0	10 0	10 0	10 0	10 0	10 0	10 0	Purnia.		
0 8 0	8 0	4 8 0	4 8 0	4 8 0	4 8 0	7 8	{ 7 0	{ 7 0	{ 8 0	7 8	6 0	{ 20 0	{ 20 0	{ 20 0	{ 20 0	{ 20 0	{ 20 0	{ 20 0	{ 20 0	{ 20 0	{ 20 0	{ 20 0	Darjeeling.		
0 11 0	11 0	3 6 0	3 6 0	3 4 0	7 8	8 0	7 8	7 8	8 0	8 0	8 0	{ 18 0	{ 17 0	{ 17 0	{ 17 0	{ 17 0	{ 17 0	{ 17 0	{ 17 0	{ 17 0	{ 17 0	{ 17 0	Julpigoree.		
Eastern Districts.																									Eastern Districts.
0 12 0	13 5	3 4 0	3 4 0	2 15 0	{ 5 0	{ 5 0	{ 5 0	{ 6 0	6 0	6 0	{ 5 0	{ 5 0	{ 5 0	{ 6 0	{ 6 0	{ 6 0	{ 20 0	{ 20 0	{ 20 0	{ 20 0	{ 20 0	{ 20 0	{ 20 0	Dacca.	
8 11 8	11 0	3 7 0	3 7 0	3 5 4	8 8	7 8	7 8	7 8	7 0	7 0	7 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	Furreedpore.	
0 13 0	10 9	2 11 0	2 11 0	2 11 0	8 11 0	7 8	7 8	7 8	6 0	6 0	6 0	{ 15 0	{ 15 0	{ 15 0	{ 15 0	{ 15 0	{ 15 0	{ 15 0	{ 15 0	{ 15 0	{ 15 0	{ 15 0	Backergunge.		
8 12 0	12 8	.....	3 4 0	.....	{ 8 0	{ 8 0	{ 8 0	{ 9 0	9 0	9 0	{ 8 0	{ 8 0	{ 8 0	{ 9 0	{ 9 0	{ 9 0	{ 30 0	{ 30 0	{ 30 0	{ 30 0	{ 30 0	{ 30 0	{ 30 0	Mymensingh.	

K Retail price of salt at Raigunge 11 $\frac{1}{2}$  seers and Nitpore 12 seers.

L In Nattore retail price of salt 12 seers.

M In the sub-divisions retail prices of salt are as follow :—Nilphamari 12 seers, and Kurigram and Gaibanda 10 seers.

N In Serajunge retail price of salt 13 seers.

O Retail price of salt at Kurseong 8 seers and Silligoree 10 seers.

P Retail price of salt at Fallacotta in Alipore sub-division 10 seers.

Q In the sub-divisions retail prices of salt are as follow :—Manickgunge 11 seers, Moonshegunge 10 seers 10 $\frac{1}{2}$  chitta ks, and Naraingunge 13 seers.R In the sub-divisions retail prices of salt are as follow :—Madaripore 12 seers, Bhanga 11 seers, and Gopalgunge 12 $\frac{1}{2}$  seers.S In the sub-divisions retail prices of salt are as follow :—Pauakhal 9 $\frac{1}{2}$  seers, Perozepore 11 seers, and Bhola 9 seer.T In the sub-divisions retail prices of salt are as follow :—Kishoregunge 10 $\frac{1}{2}$  seers, Attea 12 seers.

## PRICES-CURRENT of Food-grains, Firewood, and Salt in the

Number.	DISTRICTS.	RETAIL SALE :—QUANTITIES PER RUPEE BY THE																								
		WHEAT.				BARLEY.				RICE, BEST SORT.				RICE, COMMON.				BULRUSH MILL—CUMBOO, BAJRA				GRHAT MILL—CHOLUM, JOWAR.				
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	
<b>Eastern Districts.—(Concluded.)</b>																										
22	Chittagong	U 12 6	12 0	9 0	..	..	..	..	13 0	13 0	16 0	20 0	20 0	24 0	..	..	..	..	..	..	..	..	..	..	..	..
23	Neakholly	V W	..	..	..	..	..	..	20 0	20 0	27 0	22 0	22 0	32 0	..	..	..	..	..	..	..	..	..	..	..	..
24	Tipperah	11 6	11 6	12 0	..	..	..	..	17 0	18 8	23 0	22 12	19 4	28 4	..	..	..	..	..	..	..	..	..	..	..	..
25	Chittagong Hill Tracts.	..	..	..	..	..	..	..	12 4	12 4	13 5	13 4	13 5	17 12	..	..	..	..	..	..	..	..	..	..	..	..
	Hill Tipperah	10 0	10 0	11 0	..	..	..	..	17 0	17 0	23 0	22 0	20 0	30 0	..	..	..	..	..	..	..	..	..	..	..	..
<b>BEHAR.</b>																										
26	Patna	17 8	17 8	16 8	32 0	32 0	34 0	14 0	14 0	11 8	18 0	19 0	21 8	..	..	..	..	..	..	..	..	..	..	..	..	..
27	Gya	19 0	20 8	17 0	25 0	26 0	29 0	12 0	12 0	12 0	15 0	15 0	19 0	..	..	..	..	..	..	..	..	..	..	..	..	..
28	Shahabad	X { 17 0 to 17 0 to 17 0 17 8 } 18 0	14 8 { 24 0 to 25 0 28 0 } 16 8	..	..	..	..	11 0	11 0	17 0	15 0	15 0	15 0	..	..	..	..	..	..	..	..	..	..	..	..	
29	Durbhunga	18 0	17 0	14 0	30 0	37 0	32 0	12 0	13 8	14 0	18 0	18 0	17 0	..	..	..	..	..	..	..	..	..	..	..	..	
30	Mozafferpore	18 0	18 0	16 0	29 0	30 0	30 0	12 0	13 0	12 0	16 0	16 0	16 0	..	..	..	..	..	..	..	..	..	..	..	..	
31	Sarun	Z1 Z2	17 0	17 0	15 0	26 0	27 0	28 0	10 0	10 0	10 0	18 0	18 0	20 0	..	..	..	..	..	..	28 0	30 0	..	..	..	
32	Chumparan	Z3 Z4	19 0	19 0	18 0	34 0	36 0	36 0	13 0	13 0	12 0	17 0	17 0	20 0	..	..	..	..	..	..	..	..	..	..	..	
33	Monghyr	Z5 Z6	18 14	18 10	16 12	25 3	27 14	33 9	13 10	13 14	15 12	15 12	15 12	21 0	..	..	..	..	..	..	..	..	..	..	..	
34	Bhagnipore	Z7 Z8	16 6	16 6	15 2	27 12	27 12	30 4	15 2	15 2	17 11	17 10	21 7	21 7	..	..	..	..	..	..	..	..	..	..	..	
35	Purneah	..	29 0	16 0	15 0	..	..	..	15 0	16 0	20 0	18 0	17 0	22 0	..	..	..	..	..	..	..	..	..	..	..	
36	Maldah	..	17 0	17 0	16 0	..	..	..	16 0	14 0	18 0	19 0	16 0	21 0	..	..	..	..	..	..	..	..	..	..	..	
37	Sonthal Perghs.	14 0	14 0	13 0	..	..	..	..	16 0	16 0	18 0	22 0	22 0	23 0	..	..	..	..	..	..	..	..	..	..	..	
<b>ORISSA.</b>																										
38	Cuttack	14 7	13 2	14 7	..	..	..	..	13 2	13 2	15 12	21 0	22 5	24 15	..	..	..	..	..	..	..	..	..	..	..	..
39	Pooree	Z6 Z7	13 2	13 2	10 8	..	..	..	20 0	20 0	21 0	23 10	23 10	24 0	..	..	..	..	..	..	..	..	..	..	..	..
40	Balasore	14 0	14 0	16 0	..	..	..	..	16 0	16 0	26 0	28 0	28 0	32 0	..	..	..	..	..	..	..	..	..	..	..	
<b>CHOTA NAGPORE.</b>																										
<i>South-Western Frontier Agency.</i>																										
41	Hazaribagh	Z8 15 0	16 0	15 0	20 0	18 0	..	10 0	10 0	11 0	16 0	16 0	19 0	..	..	..	..	..	..	..	..	..	..	..	..	
42	Loharaugga	Z9 16 0	16 0	17 0	21 0	22 0	24 0	18 0	18 0	21 0	22 0	22 0	24 0	..	..	..	..	..	..	..	..	..	..	..	..	
43	Singbham	..	18 0	18 0	20 0	32 0	32 0	28 0	36 0	36 0	38 0	40 0	40 0	..	..	..	..	..	..	..	..	..	..	..	..	
44	Maubnoon	Z10 13 0	13 0	13 0	..	..	..	17 0	17 0	19 0	27 0	27 0	31 0	..	..	..	..	..	..	..	..	..	..	..	..	

- \* In the interior retail prices of common rice vary from 28½ to 39½ seers.
- U Retail price of salt at Kumeriah 10 seers, and Hathazaree and Cox's Bazar 8 seers.
- V In the interior retail prices of salt range from 5 to 12½ seers.
- W In the sub-divisions retail prices of salt are as follow:—Ibrahimnagar 12 seers and Chandpore 12½ seers.
- X In the sub-divisions retail prices of salt are as follow:—Buxar 11½ seers, Sasseram 11 seers, and Bhola 10 seers.
- Y In the sub-divisions retail prices of salt are as follow:—Madhubani 10 seers, and Ajipore 11½ seers.
- Z In Hajipore sub-division retail prices of salt in three reporting places 11 seers and in one place 12 seers.
- Z1 In Gopalpur retail price of salt 12 seers.
- Z2 In the interior retail prices of salt range from 10 to 12 seers.

## SEER OF 80 TOLAHs.

LESSER MILLET— RAGI OR MUKEWA AND CHHENA.				MAIZE OR INDIAN- CORN.			
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	S. Ch.	S. Ch.
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
30 0	30 0	35 0	32 0	32 0	34 0	30 0	30 0
...	...	...	32 0	32 0	35 0	...	...
30 0	30 0	30 0	28 0	29 0	28 0	30 0	30 0
...	...	...	...	...	41 4	...	...
...	...	...	28 6	27 14	33 9	...	...
...	...	...	...	...	44 3	...	...
...	...	...	28 0	26 0	32 0	...	...
13 2	14 7	13 2	...	...	...	...	...
...	...	...	...	...	...	...	...
30 0	30 0	36 0	20 0	21 0	27 0	30 0	30 0
23 0	29 0	38 0	...	...	...	...	...
...	...	...	...	...	...	...	...

GRAM.				FIREWOOD.			
Present return.	Nett preceding return.	Corresponding return of last year.		Present return.	Nett preceding return.	Corresponding return of last year.	
S. Ch. S. Ch. S. Ch. S. Ch.							
12 0 12 0 16 0 40 0	40 0 40 0 80 0						
12 0 12 0 14 0 ...	... ... ...						
16 0 12 12 18 0 ...	... ... ...						
... ... ... 320 0 320 0 320 0							
12 0 12 0 14 0 ...	... ... ...						
26 0 29 8 30 0 130 0 130 0 130 0							
23 0 23 8 26 0 180 0 180 0 180 0							
27 0 27 0 29 0 } to to 120 0 120 0 120 0	120 0 120 0 120 0						
28 0 28 0 30 0 } 30 0 } 160 0 160 0 160 0	160 0 160 0 160 0						
24 0 24 0 21 0 160 0 160 0 160 0							
22 0 23 0 25 0 140 0 140 0 140 0							
26 0 26 0 27 0 160 0 140 0 160 0							
28 0 27 0 28 0 ... ... ...							
25 3 25 13 30 6 147 0 126 0 126 0							
24 0 24 0 28 6 138 6 126 8 126 4							
16 0 22 0 23 0 120 0 160 0 160 0							
22 0 22 0 25 0 160 0 120 0 160 0							
20 0 21 0 20 0 200 0 200 0 200 0							
17 1 17 1 21 0 80 0 80 0 160 0							
18 6 18 6 15 0 100 0 104 0 100 0							
14 0 14 0 16 0 120 0 120 0 160 0							
18 8 19 0 19 0 240 0 240 0 180 0							
14 0 14 0 18 0 110 0 110 0 120 0							
24 0 24 0 24 0 160 0 160 0 180 0							
17 0 17 0 17 0 120 0 120 0 120 0							

*Districts of Bengal for the Fortnight ending 15th July 1883.—(Concl.)*

WHOLESALE PRICES PER MAUND OF 40 SEERS.				AVERAGE WAGES PER MONTH												DISTRICTS.		
SALT.			SALT.			ABLE-BODIED AGRICULTURAL LABOURER.				SYC OR HORSE- KEEPER.				COMMON MASON, CARPENTER, OR BLACKSMITH.				
Present return.	Net preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	DISTRICTS.
S. C.	S. C.	S. Ch.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	R. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.		
9 0	9 0	13 0	4 0 0	4 0 0	2 14 0	{ 7 8 to 11 4	7 8 to 7 0	7 8 to 5 0	6 0 to 8 0	7 0 to 7 0	6 0 to 5 0	7 8 20 0	7 8 20 0	7 8 20 0	7 8 20 0	7 8 20 0	9 0	
10 0	10 0	11 0	3 2 0	3 6 0	3 2 0	{ to to 8 0	to 7 0 8 0	to 7 0 8 0	to 7 0 7 0	to 7 0 7 0	to 7 0 7 0	to 7 0 7 0	to 7 0 7 0	to 7 0 7 0	to 7 0 7 0	to 7 0 7 0	Chittagong.	
12 0	11 8	12 8	3 5 0	3 6 0	.....	{ to to 9 0	to to 9 0	to to 9 0	to to 7 0	to to 7 0	to to 7 0	to to 7 0	to to 7 0	to to 7 0	to to 7 0	to to 7 0	Noakhally.	
6 0	6 4	10 9	6 4 0	6 0 0	3 8 0	{ 8 8 7 8	7 8 10 0	7 8 10 0	6 0	6 0	6 0	7 0	7 0	16 0	16 0	16 0	16 0	Tipperah.
11 0	11 0	10 0	3 4 0	3 6 0	7 8	7 8	7 8	7 8	6 0	6 8	6 8	13 0	14 0	14 0	14 0	14 0	Chittagong Hill Tracts. Hill Tipperah.	
BENGAL.																		
10 8	10 8	10 9	3 0 0	3 0 0	3 2 0	{ 3 0 to 4 0	3 0 to 4 0	4 0 to 4 0	4 0 to 5 0	4 0 to 5 0	4 0 to 5 0	5 10	5 0	5 10	5 0	5 10		
12 0	12 0	11 8	.....	.....	3 4 0	{ 2 8 to 3 0	2 8 to 3 0	2 8 to 3 0	3 0 to 3 0	3 0 to 3 0	3 0 to 3 0	6 0	6 0	6 0	6 0	6 0		
12 8	12 8	13 0	3 1 0	3 1 0	3 0 0	4 0	4 0	4 0	{ 5 0 to 6 0	5 0 to 6 0	5 0 to 6 0	7 8	7 8	7 8	7 8	7 8	Gaya.	
10 0	10 0	11 0	3 10 0	3 10 0	3 4 6	{ 3 0 to 5 0	3 8 to 4 0	3 8 to 4 0	3 8 to 5 0	3 0 to 5 0	3 0 to 5 0	4 8	5 8	5 8	5 8	5 8	Durbhanga.	
11 8	11 8	12 0	3 7 0	3 6 0	3 4 0	{ 3 0 to 5 0	3 12 3 12	3 12 3 12	3 12 3 12	3 0 to 4 0	3 0 to 4 0	3 0 to 4 0	10 0	7 8	10 0	10 0	10 0	Mozaffarpur.
11 0	11 0	11 0	3 6 0	3 6 0	3 6 0	{ 4 12 to 7 8	3 12 5 10	3 12 5 10	3 12 5 10	4 0 to 6 0	4 0 to 6 0	4 0 to 6 0	8 0	6 0	7 0	6 0	7 0	Saran.
11 8	11 0	10 8	.....	3 8 0	3 6 0	{ 3 0 to 6 0	5 10 5 10	5 10 5 10	5 10 5 10	4 0 to 5 0	4 0 to 5 0	4 0 to 5 0	6 0	8 0	8 0	8 0	8 0	Chumparun.
11 8	12 0	12 10	3 2 9	3 2 3	3 1 0	3 12	3 12	3 12	4 0	4 0	4 0	{ 5 10 to 7 8	5 10	5 10	5 10	5 10		
12 10	12 10	12 10	3 1 0	3 0 6	3 0 6	{ 4 0 to 5 0	4 0 to 5 0	4 0 to 5 0	4 0 to 5 0	4 0 to 5 0	4 0 to 5 0	6 0	6 0	6 0	6 0	6 0	Monghyr.	
10 0	10 0	10 0	.....	.....	3 8 0	{ 4 11 to 5 10	4 11 5 10	4 11 5 10	4 11 5 10	4 0 to 5 0	4 0 to 5 0	4 0 to 5 0	10 0	10 0	10 0	10 0	10 0	Bhagulpore.
12 0	11 0	12 0	3 4 0	3 4 0	3 2 0	7 8	7 8	7 8	6 0	5 0	5 0	7 0	7 0	7 0	7 0	7 0	Purush.	
10 0	10 0	10 8	.....	.....	3 12 0	{ 3 12 to 4 0	3 12	3 12	5 0	4 0	4 0	7 0	7 0	7 0	7 0	7 0	Maldah.	
10 0	10 0	10 8	.....	.....	3 12 0	{ 3 12 to 4 0	3 12	3 12	5 0	5 0	5 0	7 8	7 8	7 8	7 8	7 8	Sonai Pargha.	
ORISSA.																		
14 0	14 0	13 0	2 12 0	2 12 0	3 0 0	5 10	5 10	5 10	4 0	4 0	4 0	{ 7 8 to 10 0	7 8	7 8	7 8	7 8	Cuttack.	
14 0	14 0	14 8	2 12 0	2 12 0	2 12 0	7 0	7 0	7 0	5 0	6 0	5 0	{ 8 0 to 10 0	8 0	8 0	8 0	8 0	Pooree.	
9 2	9 2	13 0	.....	.....	5 10	5 10	4 11	6 0	6 0	5 0	{ 7 8 to 9 0	7 8	7 8	7 8	7 8	Balasore.		
CHOTA NAGPUR. South-Western Frontier Agency																		
9 0	9 0	10 0	4 2 0	3 15 3	3 11 3	5 0	4 0	4 4	5 0	5 0	5 0	{ 8 0 to 10 4	8 0	8 0	8 0	8 0	Hazaribagh.	
9 0	9 0	9 0	4 2 0	4 2 0	4 0 0	{ 3 0 to 4 8	3 0 0	{ 3 12 to 4 8	3 12	3 8	3 8	{ 5 0 to 5 0	5 0	5 0	5 0	5 0	Lohardogra.	
6 0	8 0	8 0	5 8 0	4 0 0	4 7 0	3 0	3 0	3 0	4 8	4 8	4 8	{ 4 8 to 5 0	4 8	4 8	4 8	4 8	Singhbhum.	
10 0	10 0	11 0	3 8 0	3 9 0	3 12 0	4 11	3 12	4 11	4 0	4 0	4 0	{ 5 0 to 5 0	5 0	5 0	5 0	5 0	Mandarmon.	

23. In the sub-divisions retail prices of salt are as follow:—Bengserai 16 seers and Jamui 11 seers.

Z3 In the sub-divisions retail prices of salt are as follow :- Dausa 10 seers in Banasura 12 seers in Banka 11 seers, and Muddelpuram and Scopole 10 seers. Haorapetra 10 seers.

Zs In the sub-divisions retail prices of salt are as follow :—Kissengunge 8 seers and Arrareah (at Kanegunge) 10 seers.

Z6 In Kheorda retail price of salt 13 seers.  
Z7 In Bharki retail price of salt 10 seers.

Z7 In Bhadrak retail price of salt 10 seers.  
Z8 Retail price of salt at Cuttack 8 seers, an

ZS Retail price of salt at Chittra 8 seers, and Khurruakhan 11½ seers.  
Zg Retail price of salt at Daltongunge 8 seers.

Z10 Retail prices of salt at Burrabazar 10 seers,

Published for ga

Published for gen

Published for general information.

COLMAN MACAULAY,  
Secy. to the Govt. of Bengal.

## WHOLESALE PRICES-CURRENT of Food-grains, Firewood, and Salt in

Number,	MARKS.	PRICES PER MAUND															
		WHEAT.				BARLEY.				RICE, BEST SORT.				RICE, COMMON.			
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	
1	Calcutta ...	2 13 0	2 14 0	2 14 0	2 1 0	2 0 0	1 12 0	3 12 0	3 14 0	4 0 0	2 8 0	2 8 0	2 0 0	2 0 0	2 0 0	2 0 0	
16	Serajgunge ...	1 14 0	1 13 0	1 14 0	... ..	... ..	... ..	4 0 0	4 0 0	3 0 0	2 4 0	2 4 0	1 14 0	... ..	... ..	... ..	
3	Dacos ...	3 2 0	3 2 0	3 3 0	2 0 0	2 0 0	0 15 0	2 8 0	2 10 0	1 10 0	2 0 0	2 2 0	1 3 0	... ..	2 0 0	... ..	
4	Naraingunge ...	...	...	...	...	...	...	2 2 0	2 3 0	1 8 0	1 12 0	2 0 0	1 6 0	...	...	...	
5	Chittagong ...	3 0 0	3 0 0	4 2 0	...	...	...	2 14 0	2 14 0	2 8 0	2 0 0	2 0 0	1 8 0	...	...	...	
6	Patna ...	2 8 0	2 3 0	2 4 0	1 3 0	1 3 0	1 2 0	2 11 0	2 11 0	3 5 0	2 5 0	2 0 0	1 12 0	...	...	...	
7	Balasore ...	2 14 0	2 12 0	2 2 0	...	...	...	2 8 0	2 8 0	1 8 0	1 5 0	1 5 0	1 7 0	...	...	...	
8	Pooree ...	...	...	...	...	...	...	...	...	...	2 2 0	2 2 0	1 10 8	...	...	...	
9	Cuttack ...	2 10 0	3 0 0	2 10 0	...	...	...	3 0 0	3 0 0	2 5 0	1 11 0	1 10 0	1 9 0	...	...	...	

CALCUTTA,  
The 24th July 1883.

*the undermentioned Marts of Bengal for the Fortnight ending 15th July 1883.*

OF 40 SEERS.

GREAT MILLET— CHOLUM, JOWAR.				LESSER MILLET— RAGI OR MURWA AND CHEENA.				MAIZE OR INDIAN- CORN.				GRAM.				FIREWOOD.				SALT.				MARTS.
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	
R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	Calcutta.		
8 0 0 2 10 0 2 14 0	... 3 0 0 2 10 0 2 14 0	... 3 0 0 2 10 0 2 14 0	... 3 0 0 2 10 0 2 14 0	1 8 0 1 8 0	... 3 0 0 2 10 0 2 14 0	1 8 0 1 8 0	... 3 0 0 2 10 0 2 14 0	1 8 0 1 8 0	2 2 0 2 4 0 1 14 0	0 6 3 0 6 3 0	2 12 0 2 12 0 2 10 0	3 0 0 3 2 0 2 13 0	3 0 0 3 2 0 2 13 0	3 0 0 3 2 0 2 13 0	3 0 0 3 2 0 2 13 0	3 0 0 3 2 0 2 13 0	3 0 0 3 2 0 2 13 0	3 0 0 3 2 0 2 13 0	3 0 0 3 2 0 2 13 0	3 0 0 3 2 0 2 13 0	3 0 0 3 2 0 2 13 0	3 0 0 3 2 0 2 13 0	3 0 0 3 2 0 2 13 0	Serajunge.
... 3 0 0 2 10 0 2 14 0	... 3 0 0 2 10 0 2 14 0	... 3 0 0 2 10 0 2 14 0	... 3 0 0 2 10 0 2 14 0	1 3 0 1 3 0 1	2 0 1 8 6	1 5 0 1 4 0 0	0 5 0 0 5 0 0	0 5 0 0 5 0 0	2 6 0 2 10 0 2 4 0 0	0 6 0 0 6 0 0	... 3 0 0 3 0 0 2 8 0 0	0 4 0 0 5 0 0	3 4 0 3 4 0 2 15 0	3 4 0 3 4 0 2 15 0	3 4 0 3 4 0 2 15 0	3 4 0 3 4 0 2 15 0	3 4 0 3 4 0 2 15 0	3 4 0 3 4 0 2 15 0	3 4 0 3 4 0 2 15 0	3 4 0 3 4 0 2 15 0	3 4 0 3 4 0 2 15 0	3 4 0 3 4 0 2 15 0	3 4 0 3 4 0 2 15 0	Dacca.
... 3 0 0 2 10 0 2 14 0	... 3 0 0 2 10 0 2 14 0	... 3 0 0 2 10 0 2 14 0	... 3 0 0 2 10 0 2 14 0	1 3 0 1 3 0 1	2 0 1 8 6	1 5 0 1 4 0 0	0 5 0 0 5 0 0	0 5 0 0 5 0 0	2 8 0 2 8 0 1 14 0 0	0 7 0 0 7 0 0	7 0 3 0 5 3 0 8 0	4 0 0 4 0 0 2 14 0	3 2 0 3 0 0 3 2 0	3 2 0 3 0 0 3 2 0	3 2 0 3 0 0 3 2 0	3 2 0 3 0 0 3 2 0	3 2 0 3 0 0 3 2 0	3 2 0 3 0 0 3 2 0	3 2 0 3 0 0 3 2 0	3 2 0 3 0 0 3 2 0	3 2 0 3 0 0 3 2 0	3 2 0 3 0 0 3 2 0	3 2 0 3 0 0 3 2 0	Narsingunge.
... 3 0 0 2 10 0 2 14 0	... 3 0 0 2 10 0 2 14 0	... 3 0 0 2 10 0 2 14 0	... 3 0 0 2 10 0 2 14 0	1 3 0 1 3 0 1	2 0 1 8 6	1 5 0 1 4 0 0	0 5 0 0 5 0 0	0 5 0 0 5 0 0	2 14 0 2 12 0 2 6 0	0 6 4 0 5 4 0 4 0	5 4 0 4 0 4 0 4 0	4 6 0 4 8 0 3 2 0	3 0 0 3 0 0 3 2 0	3 0 0 3 0 0 3 2 0	3 0 0 3 0 0 3 2 0	3 0 0 3 0 0 3 2 0	3 0 0 3 0 0 3 2 0	3 0 0 3 0 0 3 2 0	3 0 0 3 0 0 3 2 0	3 0 0 3 0 0 3 2 0	3 0 0 3 0 0 3 2 0	3 0 0 3 0 0 3 2 0	3 0 0 3 0 0 3 2 0	Balasore.
... 3 0 0 2 10 0 2 14 0	... 3 0 0 2 10 0 2 14 0	... 3 0 0 2 10 0 2 14 0	... 3 0 0 2 10 0 2 14 0	1 3 0 1 3 0 1	2 0 1 8 6	1 5 0 1 4 0 0	0 5 0 0 5 0 0	0 5 0 0 5 0 0	2 2 0 2 2 0 1 11 0 0	0 8 0 0 8 0 0	8 0 4 0 2 12 0 2 12 0	2 12 0 2 12 0 2 12 0	2 12 0 2 12 0 2 12 0	2 12 0 2 12 0 2 12 0	2 12 0 2 12 0 2 12 0	2 12 0 2 12 0 2 12 0	2 12 0 2 12 0 2 12 0	2 12 0 2 12 0 2 12 0	2 12 0 2 12 0 2 12 0	2 12 0 2 12 0 2 12 0	2 12 0 2 12 0 2 12 0	2 12 0 2 12 0 2 12 0	Pooree.	
... 3 0 0 2 10 0 2 14 0	... 3 0 0 2 10 0 2 14 0	... 3 0 0 2 10 0 2 14 0	... 3 0 0 2 10 0 2 14 0	1 3 0 1 3 0 1	2 0 1 8 6	1 5 0 1 4 0 0	0 5 0 0 5 0 0	0 5 0 0 5 0 0	2 2 0 2 2 0 1 11 0 0	0 8 0 0 8 0 0	8 0 4 0 2 12 0 2 12 0	2 12 0 2 12 0 2 12 0	2 12 0 2 12 0 2 12 0	2 12 0 2 12 0 2 12 0	2 12 0 2 12 0 2 12 0	2 12 0 2 12 0 2 12 0	2 12 0 2 12 0 2 12 0	2 12 0 2 12 0 2 12 0	2 12 0 2 12 0 2 12 0	2 12 0 2 12 0 2 12 0	2 12 0 2 12 0 2 12 0	2 12 0 2 12 0 2 12 0	Cuttack.	

Published for general information.

COLMAN MACAULAY,  
Secy. to the Govt. of Bengal.

## Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.	DISTRICT.	Representative station.	STATION OBSERVATIONS.														
			AIR PRESSURE.			WIND.		TEMPERATURE.							Mean daily temperature of week.	Variation from normal mean of week.	Mean 10 A.M. temperature.
			Mean barometer height, 10 A.M.	Mean reduced to sea-level.	Variation from mean.	Prevailing direction.	Mean wind velocity miles per day.	Highest during week.	Lowest during week.	Mean maximum temperature.	Mean minimum temperature of week.	Mean daily temperature of week.					
ORISSA.	Pooree	Gopalpore	29°590	29°640	—	S	361	85°6	79°8	84°0	80°5	82°3	—	82°8	86	7°1	
	...	False Point	29°616	29°637	+008	SW	336	88°5	74°6	87°1	78°4	82°8	-0°5	84°1	84	9°0	
	Cuttack	Cuttack	29°555	29°635	+023	WNW	99	91°4	75°3	87°9	78°4	83°1	-1°0	84°4	76	9°6	
	Balasore	Balasore	29°565	29°623	—	SW	161	87°9	75°7	86°4	78°2	82°3	—	83°6	85	7°6	
	South-West Midnapore	Saugor Island	29°610	29°636	+028	SW	423	88°4	71°4	86°9	79°1	83°0	-0°8	84°0	87	9°4	
	South 24-Pergunnahs	Midnapore	29°479	29°613	—	Variable	?	90°0	73°8	87°2	76°8	81°0	—	84°2	80	8°3	
	24-Pergunnahs	Calcutta	29°607	29°629	+020	SW	168	88°1	74°7	86°7	77°9	82°3	-1°3	83°1	85	9°9	
	Howrah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Hoochly	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Burdwan	Burdwan	29°513	29°613	+007	SW	110	90°6	74°4	88°2	77°9	83°1	-1°9	82°2	88	9°7	
SOUTH-WEST BENGAL.	Bankoora	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Beerbhoom	Raniganj	29°256	—	—	Variable	?	92°5	74°4	89°0	77°4	83°2	—	89°9	91	8°4	
	West Burdwan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Moorshedabad	Berhampore	29°540	29°606	+001	Variable	144°6	88°6	74°8	87°2	77°6	82°4	-3°1	83°0	85	10°0	
	Nuddea	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Jessore	Jessore	29°579	29°619	+008	SSW	109°1	90°9	76°0	87°7	78°0	82°9	-1°3	82°9	90	9°7	
	Khoolina	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Chittagong	Chittagong	29°617	29°707	+046	SE	144	90°1	74°0	85°1	75°6	80°4	-1°1	80°3	92	9°3	
	Chittagong Hill Tracts	Demagri	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Backergunj	Barrisal	29°647	—	—	NW	325°4	90°1	74°9	85°4	77°3	81°3	—	81°3	93	8°1	
EAST BENGAL.	Noakholly	Noakholly	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Furreedpore	Furreedpore	29°612	—	—	Variable	143°3	88°5	75°9	86°2	77°3	81°8	—	81°5	89	8°7	
	Dacca	Dacca	29°605	29°640	+020	Variable	113	90°8	75°1	85°4	77°5	81°5	-2°4	82°3	90	9°4	
	Commillah	Commillah	29°638	29°674	—	SE	?	84°6	60°8	80°4	75°9	78°2	—	80°4	89	8°1	
	Mymensingh	Mymensingh	29°601	—	—	E	161	89°3	75°1	86°7	76°6	81°7	—	80°3	91	9°9	
	Bogra and Pubas	Serajgunj	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Rajshahye	Rampore Beauleah	29°534	29°608	—	Variable	243	91°6	77°6	89°6	79°4	84°5	—	83°8	85	6°9	
	Dinagepore	Dinagepore	29°500	—	—	SE	137°9	92°6	76°1	88°6	77°8	83°2	—	82°7	76	9°1	
	Rungpore	Rungpore	29°607	—	—	Variable	130°0	92°8	75°6	89°3	77°2	83°3	—	84°2	82	8°0	
	Julpigoree	Julpigoree	29°312	—	—	?	127	90°5	74°1	87°5	76°4	82°0	—	82°5	86	8°1	
NORTH BENGAL.	Cooch Behar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Darjeeling Hill Districts	Darjeeling	22°882	—	—	E	93	71°6	54°6	67°6	56°8	61°8	—	62°5	94	9°7	
	Dehree	Dehree	29°243	29°596	—	SW	?	92°4	70°0	84°9	71°8	78°3	—	83°3	80	8°3	
	Shahabad	Sugar	29°318	29°587	—	Variable	189	100°9	75°8	91°2	78°0	84°6	—	83°2	83	8°0	
	Gya	Gya	29°268	29°586	+026	Variable	65	98°2	73°3	91°0	74°8	82°9	-2°4	83°6	84	10°0	
	Patna	Bankipore	29°412	29°596	+014	Variable	110	99°5	77°7	90°6	79°1	84°8	-1°0	83°4	84	9°4	
	South Bhagulpore	Bhagulpore	29°445	29°589	—	Variable	86	94°4	77°0	88°5	78°5	83°8	—	83°1	84	7°4	
	Monghyr	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Sonthal Pergunnahs	Doomka	29°108	—	—	NW	—	91°1	74°8	87°8	76°4	82°1	—	82°8	92	7°6	
	Purneah	Purneah	29°469	29°525	+001	E	48	93°2	70°3	88°9	78°2	83°6	-1°0	85°0	84	9°9	
NORTH BHAR.	North Bhagulpore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Mozufferpore	Durbhunga	29°425	29°591	+019	SE	106	96°4	78°5	89°7	80°2	85°0	+0°6	84°9	82	7°3	
	Durbhunga	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Chuimpurun	Motihari	—	—	—	NE	—	96°6	75°4	88°2	78°2	83°2	—	85°0	80	2°0	
	Sarun	Chupra	29°395	—	—	Variable	51	99°0	76°5	97°4	77°9	87°7	—	84°1	93	8°9	
	Hazaribagh	Hazaribagh	27°614	29°606	+024	W	213	89°5	72°6	82°8	74°0	78°4	-1°0	77°9	86	10°0	
	Lohardugga	Ranchee	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Marbhoom	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
CHOTA NAGPUR.	Singhthoom	Chybasia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	

Observatory not commenced.

Ditto.

*Explanation of Summary.*—The normal means of air pressure and temperature are the arithmetical averages or means of the readings during the same week. The humidity of the atmosphere is expressed as a percentage, saturated air being represented by 100. A clear sky is denoted by 0 and an overcast sky by 100. The "normal means" are the numerical means or averages of the rainfall in that district determined from the returns sent in by the sub-divisions from that district, (i.e.) the total rainfall at the sub-divisional stations in the district sending in returns divided by the number of stations. A rainy

For the week ending 20th July 1883.

No. of observin g station.	DISTRICT OBSERVATIONS.										METEOROLOGICAL DIVISION.
	RAINFALL.										
	Of week.		Since 1st of month.		Since 15th May.		Representative station.		DISTRICT.		
	Average for district.	Normal mean for district.	Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.	Average number of rainy days during the week.	Normal number of rainy days of week.	
123	2.02	3.41	10.36	7.91	+2.45	27.62	18.50	+9.12	5.0	4.2	Gopalpore ... } Pooree ... ... }
118	4.49	3.13	11.26	8.14	+3.12	28.22	18.70	+9.52	4.3	3.8	Cuttack ... ... }
143	3.01	3.24	9.83	8.75	+1.08	27.72	18.50	+9.22	5.3	4.0	Balasore ... ... }
196	5.84	3.12	13.27	9.38	+3.89	25.04	21.79	+3.25	6.3	4.5	South-West Midnapore ... }
24	5.55	2.24	8.29	7.78	+0.51	16.46	19.82	-3.36	5.0	3.9	South 24-Pergunnahs ... }
84	6.78	2.33	10.72	6.79	+3.93	21.73	19.72	+2.01	6.4	4.9	Midnapore ... ... }
30	9.00	2.61	10.44	5.87	+4.57	23.47	17.17	+6.30	6.0	3.8	Burdwan ... ... }
90	8.21	2.66	10.91	7.57	+3.34	26.60	20.15	+6.45	5.6	4.5	Bankura ... ... }
106	5.83	2.14	7.16	7.18	-0.02	20.96	19.05	+1.91	5.7	4.2	Berhampore ... ... }
106	4.03	1.69	6.04	6.42	-0.38	17.47	20.09	-2.62	6.2	4.0	Moorshedabad ... ... }
206	5.48	2.48	8.50	6.81	+1.69	19.92	23.13	-3.21	6.7	4.7	Nuddea ... ... }
191	13.30	7.28	16.89	18.29	-1.40	69.86	53.95	+16.81	7.0	5.6	Jessore ... ... }
	5.94	3.21	8.26	8.98	-0.72	29.03	32.48	-3.45	6.5	5.6	Khooina ... ... }
22	7.51	4.17	10.34	11.27	-0.93	30.02	36.41	-6.39	6.8	5.9	Chittagong ... ... }
	11.41	5.70	15.84	14.54	+1.30	59.31	43.47	+10.84	6.5	5.8	Chittagong Hill Tracts ... ... }
41	7.35	1.88	9.00	6.70	+2.30	20.88	24.21	-3.33	7.0	4.8	Barrisal ... ... }
251	10.11	2.75	12.73	7.78	+4.95	23.70	25.96	-2.26	7.0	4.6	Backergunj ... ... }
77	9.66	2.73	14.27	8.16	+6.11	35.69	30.76	+4.95	6.8	5.0	Neakholly ... ... }
14	7.28	2.39	8.96	8.39	+0.57	22.67	30.74	-8.17	6.3	4.6	Furreedpore ... ... }
	6.31	2.36	8.05	7.60	+0.45	22.95	24.00	-1.95	5.8	4.0	Furreedpore ... ... }
82	3.96	2.83	5.29	8.62	-3.33	17.98	22.09	-4.11	5.7	4.2	Dacca ... ... }
71	5.83	2.51	4.44	8.00	-3.56	18.82	23.86	-5.04	5.4	4.1	Dacca ... ... }
169	3.80	3.15	4.97	10.29	-5.32	21.36	39.48	-18.12	4.0	3.7	Dinagepore ... ... }
221	9.60	5.60	10.85	13.04	-2.19	42.26	55.47	-13.21	6.6	4.7	Rungpore ... ... }
63	9.27	... ?	20.03	... ?	... ?	73.98	... ?	... ?	6.0	5.0	Julpigoree ... ... }
66	9.27	... ?	20.03	... ?	... ?	73.98	... ?	... ?	6.0	5.0	Cooch Behar ... ... }
94	4.35	1.99	6.12	6.71	-0.59	14.11	12.67	+1.44	5.2	3.9	Darjeeling ... ... }
78	5.65	2.14	7.63	6.92	+0.71	28.94	13.71	+5.23	4.8	3.5	Dehree ... ... }
102	2.94	2.21	4.97	7.35	-2.56	21.43	14.66	+6.77	4.8	3.8	Shahabad ... ... }
97	4.10	2.30	5.26	7.10	-1.84	17.03	15.25	+1.78	5.4	4.2	Bankipore ... ... }
104	5.50	2.76	7.20	8.20	-1.00	20.58	19.26	+1.32	6.05	4.3	Monghyr ... ... }
	3.21	2.88	5.08	8.96	-3.88	20.23	22.37	+6.86	4.4	4.1	Sonthal Pergunnahs ... ... }
15	2.79	2.16	4.11	7.47	-3.36	21.07	15.88	+5.19	4.5	3.3	Purneah ... ... }
7	2.11	1.82	5.80	7.33	-1.53	12.16	17.19	-5.03	5.0	3.2	North Bhagulpore ... ... }
27	3.58	2.07	6.53	6.92	-0.39	16.39	14.43	+1.91	4.5	3.6	Chumparun ... ... }
34	3.43	2.65	8.89	8.16	+0.66	16.46	18.07	-1.61	5.7	4.0	Sarun ... ... }
39	4.10	9.97	9.20	9.20	+0.77	22.30	18.43	+3.89	6.5	4.7	Hazaribagh ... ... }
214	3.01	8.23	7.32	7.32	+0.94	17.81	21.51	-3.70	6.0	4.0	Lohardugga ... ... }
	CHOTI NAG- FORE.	SOUTH BEHR.	NORTH BEHR.	NORTH BHAR.		EAST BENGAL.	NORTH BENGAL.				

for the past 12 years. The variations are *negative* when the mean for the week is less than the corresponding normal mean and *positive* when greater. The number denoting cloud amount represents the part of the sky covered, the whole sky being denoted by 10. Under the head "district observations" for the period in question during the past 2 years. The "mean for the district" are the numerical averages of the rainfall returns received one on which at least an hundredth of an inch fell.

## Statement of Rainfall in Bengal for the week ending Friday (6 p.m.), the 20th of July 1883.

Meteorological division.	District.	Station.	RAINFALL.								Total.			Average total rainfall from 1st to 20th July.	Total rainfall since 15th May.	Average rainfall from 15th May to date.
			Saturday, 14th July.	Sunday, 15th July.	Monday, 16th July.	Tuesday, 17th July.	Wednesday, 18th July.	Thursday, 19th June.	Friday, 20th July.	Number of rainy days.	Rainfall week.	Total rainfall from 1st to 20th July.	Average total rainfall from 1st to 20th July.			
ORISSA	Pooree	Pooree	0'18	0'26	0'01	0'20	0'01	0'33	0'01	7	1'00	9'81	6'86	28'70	15'1	
		Khurdah	0'48	0'59	.....	0'65	0'51	0'66	0'11	6	2'98	12'00	7'63	31'87	19'2	
	Banpur	0'90	.....	.....	.....	.....	.....	.....	.....	1	0'90	5'03	7'10	21'41	17'2	
	False Point	0'21	0'26	0'03	.....	0'13	1'94	0'63	6	3'20	10'83	10'07	31'35	21'4		
	Hookitola	0'54	.....	.....	0'20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Cuttack	Jagatsingapore	0'60	.....	.....	.....	1'20	0'10	.....	.....	3	1'90	8'63	6'03	14'2		
	Banki	'5	'2	.....	2	0'45	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	Cuttack	0'65	0'43	.....	1'96	0'28	0'59	1'00	6	3'71	10'58	8'61	38'56	20'1		
	Kendrapara	.....	.....	.....	2'00	0'40	3'30	1'50	4	7'20	11'63	8'16	28'65	18'1		
	Jajpore	0'28	.....	.....	.....	0'28	2'28	1'72	4	4'56	13'62	9'71	30'88	21'3		
Balasore	Chandbali	0'40	.....	0'40	.....	.....	2'02	0'80	4	3'62	10'90	8'25	38'08	16'6		
	Bhuddruck	0'59	0'52	0'81	0'28	0'26	0'33	6	2'79	8'13	7'88	26'73	19'4			
	Sornah	0'07	0'10	0'20	0'60	0'30	0'70	0'08	7	2'05	7'77	7'12	25'67	16'1		
	Balasore	0'60	0'45	.....	.....	0'12	0'41	0'08	5	1'66	7'53	9'44	28'90	19'2		
	Jelaisore	0'30	.....	2'58	0'44	0'30	0'50	5	4'12	10'89	10'70	28'16	19'6			
OUTH-WEST BENGAL	Baripodah	0'93	0'12	0'58	.....	2'09	0'25	0'14	6	4'11	10'48	9'04	20'1			
	Midnapore	Contai	1'24	0'26	0'03	.....	2'76	0'92	0'14	6	5'35	14'50	9'29	29'40	21'6	
	Saugor Island	0'23	0'05	1'01	1'30	0'30	0'90	0'43	7	4'31	13'42	9'60	26'98	22'1		
	Tumlock	0'90	.....	.....	.....	2'00	2'10	2'40	4	7'40	10'50	6'84	18'60	18'2		
	Midnapore	1'04	0'10	.....	.....	1'02	1'71	0'23	5	4'10	6'53	7'03	14'25	18'8		
24 Pergunnahs	Ghatia!	0'34	0'24	.....	0'77	1'39	2'11	0'23	6	5'08	7'85	9'84	16'23	22'1		
	Diamond Harbour.	0'66	0'33	0'11	.....	2'04	3'06	0'15	6	6'35	11'87	9'28	18'72	22'1		
	Alipore Jail	0'45	0'69	0'13	0'01	1'62	1'32	0'05	7	4'27	9'10	7'18	19'01	20'4		
	Barrackpore	0'82	.....	0'29	1'16	5'10	0'72	5	8'03	11'04	6'14	22'46	19'7			
	Dum-Dum	0'26	0'08	0'05	0'03	1'19	3'37	0'29	7	5'27	12'17	6'16	21'93	19'5		
Howrah	Baraset	0'33	.....	0'24	0'27	0'96	5'10	0'83	6	7'73	11'56	5'72	22'40	18'7		
	Huseerhat	0'29	0'85	0'13	0'18	0'85	5'28	0'46	7	8'04	13'42	7'55	28'97	22'1		
	Howrah	0'23	0'45	.....	0'18	1'14	1'40	0'08	6	3'48	7'44	6'06	17'33	19'5		
	Mohesreka	0'34	0'49	0'04	0'01	2'01	1'06	0'94	7	5'70	9'60	7'87	18'56	20'8		
	Hooghly	0'02	0'70	0'03	0'12	1'19	4'50	0'50	7	7'15	9'84	6'43	21'56	18'6		
Burdwan	Serampore	0'42	1'27	0'18	.....	0'96	9'15	0'99	6	12'97	15'78	5'76	26'86	17'7		
	Hooghly	0'18	.....	0'17	1'72	2'00	0'25	0'88	6	5'20	7'25	8'13	18'07	29'9		
	Jehanabad	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
	Culna	.....	0'85	.....	0'65	1'45	4'35	0'10	5	7'49	9'59	6'25	21'45	16'5		
	Burdwan	1'10	0'09	0'16	0'58	1'20	10'20	0'87	7	14'20	15'43	5'62	30'47	16'6		
Bankura	Cutwa	0'50	.....	0'50	0'34	1'37	2'45	0'24	6	5'40	6'32	5'77	18'52	17'6		
	Raneeunge	0'89	0'60	.....	0'80	8'40	2'45	0'18	6	14'23	17'98	7'10	39'71	16'8		
	Bankoora	1'69	0'26	.....	2'45	1'21	4'25	0'50	6	9'76	12'44	7'41	20'98	19'3		
	Bishenpore	0'31	0'50	.....	0'90	0'58	3'00	0'10	6	5'39	7'10	6'73	21'78	20'4		
	Mallara	0'49	.....	1'69	1'63	2'44	.....	4	6'24	8'66	6'83	22'46	18'8			
Beerbhoom	Khatra	.....	.....	0'53	2'79	0'53	0'02	4	3'89	6'45	9'82	18'00	23'7			
	Bh. Soory	0'07	0'24	0'26	2'69	3'12	2'98	1'00	7	10'37	15'10	7'60	37'86	19'7		
	Hetampore	.....	0'15	0'71	1'77	2'37	2'12	0'50	6	7'62	9'20	7'29	20'87	21'9		
	Nuddea	0'70	0'32	0'50	0'30	0'55	2'40	.....	6	4'77	7'42	6'78	18'70	20'9		
	Bongong	0'30	1'14	0'21	0'36	2'36	4'2	0'09	7	8'88	11'95	5'70	24'99	18'3		
Jessore	Ranaghata	0'82	0'31	.....	1'12	0'39	0'07	.....	5	2'71	3'17	6'52	9'37	17'7		
	Kishnaghur	0'52	.....	0'42	0'70	0'65	0'38	0'30	6	3'17	4'30	6'61	11'79	21'6		
	Chooodanga	0'21	0'12	0'32	0'11	0'57	0'71	0'66	7	3'00	5'08	6'18	18'12	19'1		
	Meherpore	0'11	0'10	0'38	0'21	.....	0'08	0'75	6	1'63	4'23	6'72	21'96	22'3		
	Koositea	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Moorsheadabad	Kholna	0'58	0'17	0'08	1'83	0'75	3'12	0'52	7	7'05	13'53	7'71	28'26	23'2		
	Satikira	0'72	0'37	0'07	1'74	0'44	0'57	0'16	7	5'11	8'20	8'82	18'60	27'3		
	Bagirhat	0'63	0'98	1'10	0'85	0'70	0'91	0'16	7	4'43	7'94	7'30	29'45	22'8		
	Jessore	0'60	0'35	0'09	1'92	0'21	0'09	0'15	7	3'61	6'34	5'17	18'29	20'7		
	Narail	0'55	0'67	0'07	2'10	1'22	1'58	0'09	7	6'06	7'99	6'06	22'38	25'2		
Chittagong	Jhenidah	1'63	0'07	1'69	1'45	0'38	0'13	0'11	7	4'76	6'78	6'32	17'79	23'2		
	Mugoorah	1'30	0'80	.....	3'05	0'67	0'27	0'27	6	7'34	9'68	6'30	23'32	21'9		
	Ranagnati	0'33	0'18	0'16	1'81	2'36	0'12	0'85	7	5'81	8'58	10'32	30'07	44'3		
	Kuma	0'35	0'22	2'55	2'24	0'36	0'35	6	6'97	7'62	5'63	38'31	30'3			
	Agartola	1'96	0'29	1'24	3'											

## Statement of Rainfall in Bengal for the week ending Friday (6 p.m.), the 20th of July 1883—concluded.

Meteorological division.	District.	Station.	RAINFALL.							TOTAL.		Average total rainfall from 1st to 20th July.	Total rainfall since 15th May.	Average rainfall from 15th May to date.	
			Saturday, 14th July.	Sunday, 15th July.	Monday, 16th July.	Tuesday, 17th July.	Wednesday, 18th July.	Thursday, 19th July.	Friday, 20th July.	Number of rainy days.	Rainfall of week.				
NORTH BENGAL	Pubna	Pubna	0.22	0.51	0.81	1.07	0.20	0.23	0.34	6	3.18	6.27	8.00	19.26	21.41
		Serajunge	0.50	.....	3.00	2.40	0.20	.....	4	6.10	7.37	6.99	23.59	22.29	
	Bogra	Sherpore	0.76	0.20	1.90	1.40	0.20	0.25	.....	6	4.71	7.72	9.05	15.88	24.36
		Nowshilla	2.03	0.41	.....	2.02	0.40	0.27	0.08	6	5.21	5.32	6.35	14.74	23.26
	Bogra	Bogra	3.48	0.28	4.83	0.46	0.18	1.14	.....	6	10.37	12.12	9.34	22.70	28.20
		Panchbibi	0.50	0.94	0.59	1.43	0.63	0.90	.....	6	4.99	5.76	10.12	17.96	25.31
	Rajshahye	Beaulah	0.14	0.56	0.02	1.92	0.09	0.27	0.04	7	3.04	4.57	8.66	14.18	21.55
		Nattore	0.10	.....	1.19	0.35	0.15	.....	4	1.70	3.30	9.03	12.95	23.24	
Maldah	Maldah	.....	1.14	0.90	4.22	0.51	0.05	0.33	6	7.15	7.99	8.16	19.95	21.31	
Dinagepore	Mohadebpore	0.20	0.40	1.90	1.00	1.00	0.54	0.40	7	5.44	6.84	8.04	15.90	29.09	
	Churaman	.....	1.28	0.20	2.33	0.12	0.03	5	3.96	4.16	6.99	17.88	21.35		
	Raijunge	0.44	0.92	0.49	0.67	0.06	0.07	6	2.65	3.19	8.04	17.37	27.23		
	Dinagepore	0.03	0.28	0.22	1.00	0.06	.....	5	3.19	3.71	9.22	19.68	30.43		
Rungpore	Baloorhat	0.65	.....	1.60	1.21	.....	0.47	.....	4	3.93	4.05	.....	.....	.....	
	Shawanigunge	.....	1.28	.....	2.81	.....	0.50	.....	3	4.59	6.59	7.43	28.24	28.18	
	Rungpore	0.02	0.33	0.44	2.13	0.01	0.33	.....	6	3.26	4.10	13.46	21.33	33.77	
	Kurigram	.....	0.60	0.85	0.08	.....	.....	3	1.53	2.48	10.14	25.20	41.72		
Julpigoree	Bagdogra	0.11	2.15	2.78	0.78	.....	.....	4	5.82	6.21	10.13	29.35	48.18		
	Julpigoree	0.64	0.74	1.65	.....	2.63	0.54	0.67	6	6.87	10.12	10.23	51.20	54.93	
	Cooch Behar	Dinhatta	0.02	0.40	1.64	4.53	0.87	1.81	0.02	7	9.38	10.31	7.26	33.91	53.42
		Cooch Behar	0.45	0.45	7.61	0.62	1.25	1.90	.....	6	11.88	12.35	14.59	47.45	59.36
Darjeeling Hill.	Miekligunge	0.40	1.02	7.30	0.36	0.22	0.18	0.32	7	9.86	10.07	10.41	41.82	52.17	
	Matabhang	0.16	0.24	6.93	0.71	1.76	0.22	0.01	7	10.02	11.40	13.71	51.95	59.41	
	Buxa	0.90	2.00	0.71	1.09	1.37	2.19	.....	7	7.29	11.64	37.01	99.30	.....	
	Siliguri	0.96	0.13	0.90	0.15	3.90	1.10	1.05	7	3.58	21.08	48.63	.....	.....	
NORTH BEHAR	Purneah	Kissengunge	.....	0.98	0.95	1.23	0.60	0.01	5	3.77	7.71	11.18	32.42	29.88	
		Arrareah	0.72	.....	2.06	1.73	.....	3	4.51	5.65	9.70	35.43	25.73		
		Purneah	0.27	0.75	0.48	1.50	0.11	0.06	6	3.17	4.95	8.85	16.30	23.89	
	North Bhagulpore	Madadpore	.....	1.85	0.05	0.10	0.85	0.42	5	3.27	5.73	7.87	53.94	16.80	
Durbhunga	Scopool	0.11	.....	1.00	.....	0.29	.....	3	1.31	1.38	7.17	25.98	17.98		
	Tajpore	.....	0.28	0.26	1.47	0.03	0.06	2.97	6	5.07	6.56	8.10	21.36	15.93	
	Durbhunga	0.03	.....	1.38	.....	1.38	0.70	3	2.13	3.01	7.97	23.25	16.45		
	Madhubani	.....	.....	.....	0.25	1.34	0.05	3	1.64	3.35	6.54	19.42	16.53		
Mozafferpore	Sitamarhi	.....	0.41	0.65	0.12	3.18	0.12	3	1.18	3.22	7.05	11.23	16.56		
	Mozafferpore	0.14	0.50	0.04	1.23	0.13	0.93	1.27	7	4.24	5.40	8.39	27.27	16.18	
	Hajipore	0.09	0.15	.....	0.48	0.82	.....	0.96	5	2.50	3.13	7.02	18.85	14.18	
	Chumparun	.....	0.08	0.45	0.25	0.06	0.32	0.32	5	1.16	5.96	6.18	12.87	15.97	
SOUTH BEHAR	Shahabad	Motihari	.....	0.52	0.25	0.12	.....	3	0.89	6.26	8.99	12.23	19.77		
		Bettiah	.....	0.52	0.25	0.12	.....	7	4.29	5.19	6.82	11.40	15.81		
	Gopalgunge	0.44	0.29	0.06	1.00	2.19	0.21	0.16	7	4.64	6.56	7.29	14.39	15.91	
	Sewan	0.09	2.10	2.22	0.02	0.21	.....	5	4.14	5.52	6.55	18.35	12.95		
Gya	Chuprah	1.06	0.32	0.86	.....	0.27	.....	4	2.51	6.48	6.55	12.95	12.95		
	Buxar	0.13	0.02	0.71	0.53	2.82	2.19	0.50	7	6.81	8.38	6.55	16.26	11.80	
	Dehree	.....	0.26	0.44	1.58	1.50	0.08	5	3.86	8.11	.....	.....	.....		
	Bhuboond	.....	0.20	0.30	1.76	3.40	0.50	5	6.70	7.30	7.37	10.60	13.49		
Patna	Sassera	0.15	0.09	1.50	1.00	0.03	0.03	5	2.77	4.54	6.82	12.98	12.66		
	Arrah	.....	1.02	0.30	0.14	0.31	0.31	1.77	4	2.44	6.25	14.12	12.82		
	Aurungabad	.....	0.26	0.75	1.33	0.92	.....	4	3.26	6.30	7.78	16.55	13.94		
	Gya	0.56	2.06	2.27	0.37	1.56	5	6.82	8.79	6.21	25.28	28.53			
Jehanabad	Nowadah	0.15	0.17	1.32	0.25	.....	5	2.47	5.58	6.97	14.02	14.98			
	Jehanabad	2.18	1.15	1.21	0.70	2.40	5	7.64	9.74	6.72	21.06	12.02			
	Iptna	0.68	.....	0.14	1.57	0.31	0.43	5	3.13	4.46	6.83	19.43	14.98		
	Dianpore	0.35	0.10	0.35	0.05	.....	0.10	5	0.95	2.35	6.77	13.45	14.20		
Monghyr	Behar	0.16	0.93	0.6	2.30	.....	4	3.55	6.79	7.55	32.84	14.95			
	Barri	.....	0.36	0.69	1.36	0.31	1.42	5	4.14	5.32	8.25	14.46			
	Begroosersi	.....	0.50	0.82	0.60	3.35	0.78	5	6.05	7.44	7.34	28.14	18.90		
	Monghyr	0.42	0.10	1.41	0.07	.....	0.84	5	2.84	3.23	7.66	13.37	15.64		
South Bhagulpore	Jamui	0.30	0.82	0.15	0.62	2.20	5	4.09	5.45	7.20	12.30	15.26			
	Bhagulpore	0.05	0.23	1.70	0.88	0.14	0.20	0.74	7	3.94	4.20	6.31	19.61	14.67	
	Banka	0.70	0.65	.....	0.35	2.25	0.10	5	4.05	6.04	7.02	11.81	16.77		
	Rajmehal	0.02	0.35	1.20	1.67	0.84	0.10	0.12	7	4.80	5.18	8.83	14.14	21.48	
Sonthal Per-gunnahs.	Geeda	0.97	1.32	0.21	0.23	1.39	0.51	6	4.63	6.76	6.72	13.03	15.74		
	Pakour	0.58	.....	0.25	1.15	1.18	1.75	0.38	6	5.29	6.29	9.55	22.07	22.01	
	Nya Doonka	0.05	0.12	0.37	0.54	3.00	1.40	6	5.48						

SUMMARY OF METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL FOR THE WEEK ENDING FRIDAY, 20TH JULY 1883.

The meteorology of the past week has been different in character to that of the previous weeks of the present south-west monsoon period. Moderate monsoon winds were blowing at the head of the Bay at the end of last week, and were giving light to moderate rain over the greater part of the province. The partial break in the rains which had extended to the whole Province for some days had given way, and was then confined to North Behar and Bengal. The meteorology of the past week illustrates the effect of the combination of a strong monsoon current from the Bombay coast blowing across the Central Provinces, and of a moderate current from the Bay of Bengal.

It was noted in last week's report that the barometer was falling over the Province, and that light to moderate rain was falling except in North Bengal and Behar. The barometer continued to fall steadily, and rainfall became more general and larger in amount on Saturday and Sunday. The Bombay current had been blowing strongly for some days across the Bombay coast into the Central Provinces and Central India. On Monday it began to make itself felt in Bengal. Westerly winds set in at the Chutia Nagpur stations and at the more southerly stations in South Behar. They gradually extended eastwards and increased in strength, so that on Wednesday and Thursday westerly winds obtained over Orissa, Chutia Nagpur, Behar, South-West Bengal, and the north-west angle of the Bay. The effect of the inrush of these two moist currents into Bengal was to produce a large amount of ascensional air motion, and therefore to continue the fall of the barometer, so that on Thursday and Friday pressure was considerably below the normal. Bengal thus became a large area of shallow barometric depression. Skies in consequence of the general condensation accompanying ascensional air motion became overcast over the whole Province, and favourable rain has fallen in every district. The amount has been large and above the average in every district except the Pooree, Manbhoom, and Singbhoom districts. Excessive rain has also fallen over a part of South-West Bengal the centre of which is Raniganj, which has been for some months' past a centre of unusually heavy rainfall. The westerly winds began to weaken on Friday, but still continue in Chutia Nagpur and South-West Bengal, and hence fairly general rain is still being received over the Province. The rain that occurred during this intermingling of the two branches of the monsoon current during the past week has been heavier and more general, and more uniformly distributed, than any that has yet been received up to date during the present south-west monsoon.

The variations of the elements of meteorological observation from their normal values are not very large, but are important. The barometer was very high at the beginning of the week, but gradually fell until it was considerably below the average. The mean barometric values for the week are hence slightly above the average at all stations except at Gya and Purneah. The mean temperature of the week in consequence of the prevalence of overcast skies, and of heavy rainfall than the normal, is below the average at all stations except Durbhunga, where the rainfall was not large. The deficiency of temperature averages  $1^{\circ}$  over the Province, and is greatest at Dacca and Gya, for which it is  $2^{\circ}4^{\circ}$ . Winds increased in force during the early part of the week and were above the normal strength generally during the last three days of the week. The sky has been thickly clouded at all stations except Motihari, for which the average cloud amount of the week is only 2.

The following table gives the usual summary of the temperature and rainfall data for each of the seven meteorological stations of the Province:—

METEOROLOGICAL DISTRICT.	TEMPERATURE						RAINFALL.					
	Highest observed during week.	Lowest observed during week.	Average for each day.	Average for week.	Average mean of week above or below normal mean week.		Of week.	Rainy days.	Since 1st of month.	Since May 15th.		
	Average.	Normal average.	Variation.	Average number in week.	Normal average number.	Variation.	Average.	Normal average.	Average.	Normal average.	Average.	Normal average.
Orissa	91°4	74°6	86°4	78°9	82°6	-0°8	3·13	3·26	-0·13	5·0	4·0	+1·0
South-West Bengal	92°5	71°4	87°6	77°8	82°7	-1°7	6·34	2·32	+4·02	6·0	4·4	+1·6
East Bengal	90°8	69°8	84°9	76·7	80·8	-1°8	8·77	3·48	+5·29	7·0	5·1	+1·9
North Bengal	92°6	74°3	88°8	77·7	83·3	-	5·60	3·33	+2·27	6·5	4·3	+1·2
North Behar	109°9	70°0	86°0	76·4	82·8	-1°7	2·89	2·31	+1·058	4·6	3·6	+1·0
South Behar	99°0	75·4	91·1	78·6	84·9	-0·2	4·50	2·32	+2·18	5·4	4·0	+1·2
Chutia Nagpur	89°5	72·6	82·8	74·0	78·4	-1°6	3·54	2·97	+0·57	6·1	4·8	+1·3

Very favourable rain has hence fallen throughout the Province during the past week. Orissa has received its normal amount. Elsewhere, except in the more southerly districts of Chutia Nagpur, abundant rain has fallen. In South-West Bengal and East Bengal an average of from two to three times the normal amount has been received, and in North Bengal and North Behar the proportion is somewhat less, but is large.

The general character of the rainfall is also shown by the fact that the number of rainy days exceeds the average by one to two days in all districts.

The abundant rain of the past week, following the partial break of the previous week, has increased considerably the total rainfall of the present month up to date, so that it is considerably above the average in Orissa, South-West Bengal, East Bengal, Chutia Nagpur and South Behar. There is a deficiency over the greater part of North Bengal and North Behar which is most marked in the Rungpore, Dimagepore, Rajshahye, Purneah, North Bhagulpore, Durbhunga and Mozupperpore districts. The districts in North Bengal have received deficient rainfall throughout the whole of the present season. The deficiency has, however, been due rather to lightness of the showers than to absence of cloud, and to a smaller number of rainy days.

*Saturday, the 14th July.*—Pressure increased at all stations except Gopalpore. The increase was large in amount in North and East Bengal and in North Behar. The cyclonic vortex formed during the previous week at the head of the Bay was at 10 A.M. in the neighbourhood of the Orissa hills. Pressure was above the average in all parts of the Province except Orissa, and was very high in North Behar, where it was more than a tenth of an inch above the normal. Temperature diminished in South-West Bengal. It was 1° below the average in Orissa. It had decreased slightly in Behar, but was still considerably above the average. The mean temperature of the past 24 hours was 3° above the average in Behar and 2° in Chutia Nagpur. Winds were generally normal in direction. South-easterly winds had set in over the whole of the north of the Bay, and were of moderate strength. The westward motion of the cyclonic vortex caused the winds in Orissa and South-West Bengal to draw round to directions between east and south-east. Winds were easterly in North Bengal and Behar, and were slightly stronger than they were on the 13th. Humidity increased in nearly every part of the Province during the preceding 24 hours. The amount of cloud was also larger and sky was overcast at a considerable number of stations. General rain fell in East and South-West Bengal, Orissa, and Chutia Nagpur, and local showers over the remainder of the Province, excepting in South Behar, where the break in the rains continued. The rainfall was generally light to moderate in amount, the only falls exceeding two inches being 3·48 inches at Bogra, and 2·03 inches at Nowkilla (in the Bogra district).

*Sunday, the 15th July.*—A rapid recovery of pressure took place during the preceding 24 hours. The rise was greatest in Orissa, where it was mainly due to the westward movement of the cyclonic vortex into the Central Provinces. Pressure was now considerably above the normal pressure of the day by amounts which ranged from '04" at Durbhunga to '15" at Dacca. Temperature continued to fall in Behar, and now varied from the normal temperature by small amounts over the whole Province. In Bengal and Orissa the mean temperature of the past 24 hours was 1° above the average for the day. The highest temperature recorded in the Province was 97·4° at Buxar. Moderately strong monsoon winds prevailed at the head of the Bay, and gave rise to winds of slightly greater intensity than the average over the whole Province. Winds were southerly in South Bengal, south-easterly in Central Bengal, and easterly near the Himalayas in Behar. The sky was overcast at the great majority of stations, more especially in Orissa, South-West and East Bengal. Fairly general rain, light to moderate in amount, fell over Orissa, South-West Bengal, East Bengal and Chutia Nagpur and also in North Bengal. The only fall exceeding two inches was 2·41 inches registered at Noakholly. The rainfall in Behar was, as on the 14th, limited to a few local showers of no importance.

*Monday, the 16th July.*—The changes of pressure of the preceding 24 hours were large and rather important. The barometer continued to rise in Orissa, South-West Bengal, East Bengal, and Chutia Nagpur, but fell considerably in North Bengal and Behar, so that pressure was lowest in Behar. It was still considerably above the normal of the day by amounts which varied from '06" at Purneah to '16" at Chittagong. Temperature was slightly above the average in Orissa and North Behar, and was below it elsewhere. The deficiency was greatest at Dacca, where it was 5°. The greatest observed temperature during the day was 91·2° at Gya. Moderately strong monsoon winds were blowing at the head of the Bay, and gave ordinary monsoon winds over the greater part of the Province. Winds ranged from south-west to south-east in South Bengal. South-easterly winds chiefly prevailed in North Bengal and North Behar. In South Behar and Chutia Nagpur winds were from the west or south-west, thus indicating that the Bombay current, which had been blowing strongly for some days, was extending to South Behar, Chutia Nagpur and Orissa. Humidity was high in East Bengal and North Bengal, and was increasing rapidly over the whole of Behar and Chutia Nagpur. Skies were overcast over the whole of the Province, with the exception of the western districts of North Behar. General rain occurred over nearly the whole of the Province. East and North Bengal and South Behar received moderate to heavy general rain. The rainfall was specially heavy in the Cooch Behar district. Cooch Behar received 7·61 inches, Mickligunge 7·3 inches, and Matabhangha 6·93 inches. The rainfall was light in South-West Bengal. Some heavy local showers were received in North Behar.

*Tuesday, the 17th Ju'y.*—Pressure decreased at all stations except Raneegunge and Julpigoree. The fall of the barometer was small, except in South-West Bengal, East Bengal, and the central districts of North Bengal. It was largest at Mymensingh ('18"), and a slight barometric depression had formed in Central Bengal about which the winds were circulating cyclonically. Pressure was above the average of the day by amounts which varied from +'02

at Gya to  $1^{\circ}$  at Cuttack and Saugor Island. Temperature continued to diminish with the continuance of overcast skies and rain. The mean temperature of the preceding 24 hours was very slightly above the normal in South-West Bengal and Orissa. It was  $3\frac{1}{2}^{\circ}$  below it in East Bengal and  $2^{\circ}$  in Behar. Strong monsoon winds prevailed at the head of the Bay, but had shifted round to the west and were blowing from directions between south and south-west. Winds were south-easterly at Mymensingh and Commillah, easterly at Darjeeling and Julpigoree, north-easterly in North Behar and westerly at Bhagulpore and Hazaribagh. The air was very damp in every part of the Province, and was almost saturated in East and North Bengal. Skies were overcast at all stations, except at the most westerly stations in Behar. General rain fell over the whole Province, with the exception of Orissa, during the preceding 24 hours. The amounts were large in East Bengal. Rainfalls exceeding 5 inches were received at Atia (8.63 inches), Commillah (7.9 inches), Dacca 7.04 inches), Noakhally (6.09 inches), Nowgong (6.06 inches), Fenny, Chandpore, Munshigunge, and Madaripore. The rainfall was heavy over nearly the whole of North Bengal and South-West Bengal, excepting in the Midnapore, Hooghly and Howrah districts, and 24-Pergunnahs. Raneegunge received 6.8 inches. Amounts slightly exceeding four inches fell at Bogra, Maldah, and Dinhatta in Cooch Behar. Moderate rain fell over the whole of Behar and Chutia Nagpur, and a few light showers in Orissa and the adjacent districts of South-West Bengal.

*Wednesday, 18th July.*—A rapid fall of the barometer occurred during the preceding 24 hours over the whole Province, greatest in amount in East and North Bengal and North Behar, over which it averaged a tenth of an inch. Pressure was now below the average except in Orissa and Chutia Nagpur. The deficiency was greatest at Purneah ( $.06^{\circ}$ ). The whole of North Bengal and Behar now formed an area of slight barometric depression. Temperature was unusually low with the continuance of overcast skies and the occurrence of heavy rain. The mean temperature of the past 24 hours was  $4^{\circ}$  below the normal temperature of the day in South-West Bengal, from  $3^{\circ}$  to  $6^{\circ}$  below it in East Bengal, and from  $2^{\circ}$  to  $4^{\circ}$  below it in (Behar excluding Durbhang). The highest day temperatures observed were in North Bengal. The highest maximum temperature ( $90.8^{\circ}$ ) was registered at Rungpore. Strong monsoon winds continued to blow at the head of the Bay. There was also a strong indraught to Bengal from the west, which was partly, if not entirely, the extension of the Bombay monsoon current. Winds were westerly to south-westerly at the head of the Bay, southerly in East Bengal and westerly over the whole of Behar and Chutia Nagpur. The air was slightly less damp in East and South-West Bengal than on the 17th. It was very damp and almost saturated with moisture in Behar and the northern districts of North Bengal. The sky was overcast over the whole Province. General rain fell over the whole Province. The rainfall was heavy in East Bengal, South-West Bengal, South Behar, Chutia Nagpur, and at a few stations in North Bengal. The rain was more uniformly distributed than on the 17th, and no excessive rainfalls were recorded. Rainfalls exceeding three inches were received at Raneegunge (3.4 inches) Beerbboom Soory (3.12 inches), Lallbagh (3.82 inches), Azimgunge (4.22 inches), Lalgolla (3.52 inches) and Silligori (3.9 inches).

*Thursday, the 19th July.*—Pressure again gave way over the whole Province. The fall of the barometer was generally large in amount and was greatest in South-West Bengal. Pressure was very low, but was nearly uniform over the whole of Bengal and Behar, so that it formed a large area of shallow barometric depression. Pressure was below the normal of the day by amounts ranging from  $.03^{\circ}$  in Orissa to  $.12^{\circ}$  at Burdwan. Temperature was everywhere below the mean. The deficiency averaged  $4^{\circ}$  in Chutia Nagpur and Behar,  $3^{\circ}$  in South-West Bengal,  $2\frac{1}{2}^{\circ}$  in East Bengal, and  $2^{\circ}$  in Orissa. Strong monsoon winds continued at the head of the Bay. In East Bengal winds were south-easterly and in North Bengal easterly. Over the greater part of Behar and in Chutia Nagpur, Orissa, and South-West Bengal they continued to blow from the west, and were the continuation of the westerly winds of the Central Provinces and Central India. The air was slightly drier in Orissa and South-West Bengal. Skies were overcast over the whole Province, excepting the most westerly districts of North Behar. General rain again fell over the whole Province.

The rainfall was excessive over the 24-Pergunnahs, Hooghly and Burdwan districts. Rainfalls exceeding four inches were recorded at Burdwan (10.2 inches), Hooghly (9.15 inches), Buseerhat (5.28 inches), Barrackpore (5.1 inches), and Baraset (5.1 inches). It was heavy over the whole of Chutia Nagpur, the greater part of South Behar, and South-West Bengal. Over the remainder of the province, i.e. North Behar, North and East Bengal and Orissa, it was moderate in amount.

*Friday, the 20th July.*—Pressure was lower than on the 19th over the whole Province, with the exception of a small part of South-West Bengal, represented by Saugor Island and Calcutta, and of North Bengal represented by Julpigoree and Darjeeling. It was very low and differed from the normal by amounts which ranged from  $.06^{\circ}$  at Cuttack to  $.17^{\circ}$  at Burdwan. There was no definite centre of barometric depression; and pressure, although very low, was remarkably uniform over Behar, Chutia Nagpur, and the greater part of Bengal, where the readings ranged from 29.45" (at Burdwan and Bhagulpore) to 29.50" (at Rampore Beauleah and Commillah). Temperature was much below the normal. The deficiency of the mean temperature was greatest in Orissa, where it averaged  $5\frac{1}{2}^{\circ}$  and at Gya where it was  $5^{\circ}$ . It averaged  $1\frac{1}{2}^{\circ}$  in South-West and East Bengal, South Behar, and Chutia Nagpur. Very strong south-westerly monsoon winds were now blowing at the head

of the Bay across the Bengal coast. The westerly winds in Behar and Chutia Nagpur, due to the strong current from the Bombay coast across Central India, which had been blowing steadily for three days, now began to diminish in strength and retreat westwards. Winds were south-easterly in East and North Bengal, and in North Behar, and were variable in South Behar. Westerly winds continued at Hazaribagh, Buxar, and Dehree. Humidity was above the average in every part of the Province, except at the northern stations in North Bengal. The sky was less clouded than the 19th. It was overcast in Orissa, South-West Bengal, East Bengal, Chutia Nagpur, and at the southerly and south-westerly stations in South Behar.

General rain fell during the preceding 24 hours in every part of the Province except North Bengal, where the rainfall was limited to a few local showers. The rainfall was less in amount than on the 19th, but was more uniformly distributed. It was heaviest in the Cuttack, Moorshedabad, Chittagong and Backergunge districts. Rainfalls exceeding two inches were received at Kandi (3.55 inches), Cox's Bazar (3.2 inches), Tajpore in the Durbhunga district (2.77 inches), Burrisal (4.52 inches), Jehanabad in the Gya district, Cox's Bazar, Chittagong, and Jamui in the Monghyr district.

#### MEMORANDA.

THE subjoined table exhibits the vital statistics of the first class Municipalities in Bengal for the week ending 7th July. The figures in this table indicate:—

(1.) That births and deaths were registered in these Municipalities at the rates, respectively, of 16.9 and 26.8 per 1,000 of population, against 15.8 and 25.4 per 1,000, respectively, in the preceding week ending 30th June.

(2.) That the undermentioned Municipalities returned the highest proportions of births and deaths:—

	<i>Births.</i>		<i>Deaths.</i>	
	Ratio per mille.		Ratio per mille.	
Santipore	..	28.0	Gya	.. 91.5
Gya	..	28.0	Uterparah	.. 47.2
Poori	..	25.7	Poori	.. 47.1
Hughli	..	25.5	Darjiling	.. 37.0
Midnapore	..	24.8	Burdwan	.. 32.0
			Serampore	.. 31.4
			Patna	.. 30.2
			Suburbs of Calcutta	.. 29.4
			Mozzupperpore	.. 26.8

(3.) That the mean rates at which the several death-causes proved fatal, in comparison with the rates of the preceding week, were:—

	Ratio per 1,000 during the weeks ending	
	7th July.	30th June.
Cholera	..	4.3
Small-pox	..	.6
Fever	..	11.4
Bowel-complaints	..	3.6
Injury	..	.5
Other causes	..	6.4
		6.6

indicating that there was an increase in the death-rates from cholera and fever, equal mortality from bowel-complaints, and no material difference in the fatal results from the other diseases.

(4.) That cholera, small-pox, and fever were conspicuously fatal in the following towns:—

<i>Cholera.</i>	<i>Small-pox.</i>	<i>Fever.</i>			
Ratio per mille.	Ratio per mille.	Ratio per mille.			
Gya ..	38.2	Gya ..	6.8	Gya ..	23.2
Poori ..	15.0	Purneah ..		Purneah ..	20.8

(5.) That the mortality according to *Class* or *Nationality*, excluding that among Budhists, of whom three died in only the Darjiling Municipality, stood as follows:—

	Ratio per mille.
Christians ..	47.2
Hindus ..	28.2
Mahomedans ..	22.6

(6.) That with regard mortality referable to *Age*, the highest death-rates were returned by:—

	Ratio per mille.
Infants (under 1 year) ..	204.7
Children (of 1 and under 5 years) ..	49.1
Old men (60 years and upwards) ..	55.7

and the lowest by adults, aged 10 and under 15 years, viz at 13.1 per 1,000 of the living.

F. W. A. DEFABECK,

Officiating Sanitary Commissioner for Bengal.

*Statement showing the Results of the Registration of Births and Deaths in the First Class Municipalities in Bengal during the week ending 7th July 1883.*

MORTALITY ACCORDING TO -											
BIRTHS.						Diseases.					
DISTRICTS.	NAMES OF MUNICIPALITIES.		POPULATION.			DEATHS FROM—			COMPARISON WITH PREVIOUS PERIODS.		
			Number.	Ratio per 1,000 of population per annum.	Total.	Injury.	Bowel-complaints.	Other diseases.	All causes.	Ratio per 1,000 of population per annum.	Deaths.
Burdwan	Burdwan	18,063	16,017	34,080	6	7	13	91	107	19.8	85
Midnapur	Midnapur	16,927	16,683	33,560	10	6	16	15.5	93	24.8	105
Hugli	Hugli and Chinsurah	19,179	19,539	38,718	12	7	19	16.1	94	25.5	171
Serampore	Serampore	13,559	12,897	26,496	6	6	12	11.8	11.8	23.6	100
Uttarpuria	Uttarpuria	3,046	2,464	5,510	...	1	1	...	94	94	2
Howrah	Howrah	60,989	44,639	105,628	14	13	27	6.9	6.4	13.3	107
Suburbs of Calcutta	Suburbs of Calcutta	147,925	104,234	251,439	33	33	66	8.5	6.8	13.6	100
Ranipore	Ranipore	19,413	28,169	41,582	5	5	10	6.2	6.2	12.5	100
Naldea	Naldea	4,028	4,655	8,683	1	...	1	6.0	...	6.0	670
Jessore	Jessore	9,830	9,605	8,406	...	...	...	...	...	...	44
Rajabazar	Rajabazar	10,766	9,925	19,791	1	2	3	2.6	5.3	7.9	50
Darjiling	Darjiling	4,579	2,439	7,038	...	...	1	...	3	...	1
Dhaka	Dhaka	42,782	37,379	80,161	9	14	23	5.8	9.1	14.9	64
Naraianganj	Naraianganj	7,695	4,956	12,561	1	2	3	4.1	8.3	12.4	50
Chittagong	Chittagong	13,340	8,750	22,130	4	2	6	9.3	4.7	14.1	200
Tipperah	Tipperah	8,163	5,353	13,506	4	2	6	10.4	7.7	25.1	200
Fatna	Fatna	23,064	19,658	42,742	2	3	5	2.4	3.7	6.1	60
Gya	Gya	33,220	37,831	76,141	21	20	41	14.3	13.7	28.0	105
Shahabad	Shahabad	20,960	22,505	45,465	8	8	16	9.6	9.6	19.2	100
Monufiapore	Monufiapore	13,027	11,205	24,321	6	6	12	12.8	12.8	25.7	100
Durbhangs	Durbhangs	33,775	32,329	65,096	12	9	21	9.4	7.1	16.5	133
Sarun	Sarun	26,964	27,205	53,240	10	10	29	9.8	19.6	100	100
Bhagulpore	Bhagulpore	29,610	27,813	57,463	13	13	26	11.8	11.8	23.6	100
Monghyr	Monghyr	26,154	29,306	57,629	7	8	15	6.3	7.2	13.3	87
Purneah	Purneah	8,463	6,653	15,016	3	1	4	10.4	3.5	15.9	300
Pouri	Pouri	106,231	69,429	1,250,050	218	214	432	8.4	7.1	15.0	109
Total	Total	106,231	69,429	1,250,050	218	214	432	8.4	7.1	15.0	109

## MORTALITY ACCORDING TO—

## Districts.

## Names of Municipalities.

## Deaths among—

## Deaths.

## Ratio per 1,000 of Population per annum.

				Age.																															
				Under 1 year.			1 and under 5 years.			5 and under 10 years.			10 and under 15 years.			15 and under 20 years.			20 and under 30 years.			30 and under 40 years.			40 and under 50 years.			50 and under 60 years.			60 and under 69 years.				
Burdwan	...	Burdwan	...	2	15	4	...	7761	203	329	241	72	...	3	1	1	1	2	3	6	...	2364	230	223	207	335	676	226	708	675	632				
Midnapur	...	Midnapur	...	2	12	1	...	...	...	1	1	...	...	3	2	2	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	504			
Hugli	...	Hugli and Chinbari	...	4	2	...	...	...	...	66	152	...	...	1	1	1	1	...	585	...	...	68	74	...	...	...	...	...	...	...	...	...	207		
Serampore	...	Serampore	...	...	12	4	...	...	...	247	227	...	...	1	4	2	1	5	1	...	1	...	...	...	...	...	...	...	...	...	374				
Howrah	...		Uierpara	...	5	...	...	...	...	488	...	...	...	2	...	...	...	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
24-Pergunnahs	...	Suburbs of Calcutta	...	5	88	49	...	...	...	166	71	...	...	6	2	1	2	7	4	1	2	...	...	...	...	...	...	...	...	...	...	...			
Nuddea	...	Raniganj	...	1	11	7	...	...	919	177	420	...	...	6	1	1	3	4	2	1	1	2	...	...	...	...	...	...	...	...	...	...	...		
Jessore	...	Seripore	...	...	...	...	...	...	...	...	...	...	...	33	9	5	2	9	25	19	13	14	12	3901	290	192	129	429	493	...	...	...	...	...	
Rajahmundry	...	Ramapore	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Darjeeling	...	Darjeeling	...	1	1	1	...	...	...	103	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Dacca	...	Naranganj	...	1	14	18	...	...	...	2950	113	...	...	944	...	2	2	...	3	1	1	1	1	...	2796	...	...	...	...	...	...	...	...	...	...
Chittagong	...		Chittagong	...	1	1	1	...	...	...	...	...	...	181	238	...	...	4	2	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tripura	...	Comilla	...	1	1	1	...	...	...	...	...	...	...	82	84	...	...	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Patna	...	Patna City	...	1	1	1	...	...	...	...	...	...	...	90	272	...	...	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Gya	...	Gya	...	1	1	1	...	...	...	...	...	...	...	15	23	9	3	8	5	6	8	4	12	1810	819	278	108	340	345	...	...	...	...	...	
Shahabad	...	Arrah	...	1	7	2	...	...	...	...	...	...	...	117	84	...	...	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Moradnagar	...	Mozaffarpur	...	1	12	10	...	...	...	341	191	...	...	208	417	...	...	7	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Darbhanga	...	Darbhanga	...	1	21	5	...	...	...	970	712	...	...	24	23	13	8	2	17	9	6	2	3	2	3	2	3	2	3	2	3	2			
Saran	...	Chhapra	...	8	2	...	...	...	101	87	...	...	117	84	...	...	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Bhadrak	...	Bhadrak	...	24	3	...	...	...	914	91	...	...	9	5	1	2	4	1	1	3	4	3	...	...	...	...	...	...	...	...	...	...	...		
Monghyr	...	Monghyr	...	13	3	...	...	...	151	124	...	...	2	1	3	...	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Purnia	...	Purnia	...	3	3	...	...	...	179	276	...	...	1	2	...	...	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Poorni	...	Poorni	...	22	...	...	...	...	476	476	...	...	47	6	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
	Total	...	10	502	170	3	...	...	472	282	226	786	...	119	104	48	58	58	48	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	

OFFICE OF SANITARY COMMISSIONER FOR BENGAL,  
The 23rd July 1883.

F. W. A. DEFA BECK,  
Offy. Sanitary Commissioner for Bengal.

Results of the Meteorological Observations taken at the Alipore Observatory from  
15th to 21st July 1883.

Month,	Date,	Maximum in $\frac{\text{mm}}{\text{sq. ft.}}$ ,	Number of hours of bright sunshine,	Mean pressure barometer at 3pm Fair,	TEMPERATURE.				HYGROMETRY.				WIND.		Miles recorded.	Rain.	WEATHER.
					Mean,	Maximum,	Range,	Minimum,	Mean wet bulb.	Vapour tension,	Dew point,	Humidity,	Prevailing direction,				
1883.		0		Inches.	0	0	0	0	Inches	0	%				Inches.		
July	15th	139.2	Nil	29.639	82.0	86.4	7.4	79.0	79.7	0.986	78.8	90	SSE and S	..	105	0.32	Cloudy, o, g, d, p, t.
"	16th	137.7	1	.645	83.4	87.7	8.6	79.1	80.2	.988	78.9	87	SW and SW by W ...	..	163	0.20	Cloudy, o, g, p.
"	17th	114.9	Nil	.599	82.1	85.6	5.4	80.2	79.6	.981	78.6	83	SW	..	180	1.38	Cloudy, o, g, d, p, t.
"	18th	142.5	Nil	.523	79.4	85.4	10.5	74.9	77.0	.900	76.0	90	SW and WSW	..	119	0.52	Cloudy, o, g, d, p.
"	19th	148.5	4	.447	80.9	85.6	9.6	76.0	77.7	.911	76.4	87	W and SW by W ...	..	244	1.18	Cloudy, o, g, d, p.
"	20th	143.5	5	.436	83.0	86.6	9.4	77.2	79.1	.941	77.4	83	SW by W and SW ...	..	189	0.10	Cloudy, o, p, d.
"	21st	151.5	3	.490	82.4	87.7	10.5	77.2	78.8	.939	77.3	85	SW by W and S ...	..	141	0.30	Cloudy o, d, p.

The mean pressure of the seven days	... ...	Inches.	29.540
The average pressure of the corresponding period for 24 years, S. G. Office	... ..	Inches.	29.509
The total number of hours of bright sunshine of the seven days	... ..	Hours.	13
The mean temperature of the seven days	... ..	°F.	81.9
The average temperature of the corresponding period for 24 years, S. G. Office	... ..	°F.	83.5
The extreme variation of temperature during the seven days	... ..	°F.	12.8
The maximum temperature during the seven days	... ..	°F.	87.7
The highest velocity of the wind in one hour during the seven days	... ..	Miles.	19
The highest pressure of the wind on one square foot during the seven days	... ..	lbs.	Not measurable
The mean relative humidity during the seven days	... ..	%	87
The average relative humidity of the corresponding period for 24 years, S. G. Office	... ..	%	86
The total fall of rain from 15th to 21st July 1883	... ..	Inches.	3.98
The average fall of the corresponding period for 24 years, S. G. Office	... ..	Inches.	2.53
The total fall from 1st January to 21st July 1883	... ..	Inches.	27.59
The average fall of the corresponding period for 24 years, S. G. Office	... ..	Inches.	29.61

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph, and from observations made at 6h, 10h, 16h, and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified, and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides, and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard Newman's No. 86 formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formulae.

The direction of the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

o overcast, g gloomy, p passing temporary showers, t thunder, d drizzling rain.

JOHN ELIOT,

METEOROLOGICAL OFFICE, INDIA,  
The 23rd July 1883.

For Meteorological Reporter to the Government of India.

Results of the Thermometrical Observations taken at the Meteorological Office,  
Chowringhee, from 15th to 21st July 1883.

MONTH.	Date.	TEMPERATURE.				HYGROMETRY.				Rain.
		Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	
1883.		°	°	°	°	°	Inches.	°	%	Inches.
July	15th	82.3	87.6	8.6	79.0	79.8	.985	78.8	89	0.63
"	16th	82.8	87.8	8.3	79.5	80.7	1.021	79.9	91	0.13
"	17th	82.3	86.3	5.3	81.0	80.3	1.008	79.5	91	0.64
"	18th	78.3	85.3	9.6	75.7	76.6	.894	75.8	92	1.46
"	19th	80.2	86.4	9.3	77.1	78.5	.953	77.8	92	1.47
"	20th	81.9	87.5	9.7	77.8	79.6	.982	78.7	90	0.26
"	21st	81.9	88.3	9.7	78.6	80.0	.999	79.2	91	0.27

The mean temperature of the seven days ... ... ... ... ... 81.4

The extreme variation of temperature during the seven days ... ... 12.6

The maximum temperature during the seven days ... ... 88.3

The mean relative humidity during the seven days ... ... 91

The total fall of rain from 15th to 21st July 1883 .. ... 4.26

The mean temperature and humidity are obtained by applying to the mean of the 10h, 16h, and minimum readings a correction dependent on the range, and derived from the hourly observations at the Surveyor-General's Office, Chowringhee, in past years.

METEOROLOGICAL OFFICE, INDIA,  
The 23rd July 1883.

JOHN ELIOT,  
For Meteorological Reporter to the Govt. of India.

**Report on the Fluctuations in Traffic on the Northern Bengal State Railway for the month of June 1883.**

**GENERAL REMARKS.**

THOUGH the figures given in the comparative statement below represent the traffic lifted during the month of June, the dullest month of the half year, it will be observed that, as compared with the same period last year, an increase of 53,658 maunds has taken place. The principal increases have occurred in Food-grain, Gunny-bags, Piece-goods, Railway material, and Salt, while Tea, Tobacco and all other goods, have slightly declined. The remarks below will explain these fluctuations.

**INCREASES.**

Ale	...	...	...	...	...	Mds.	589
Increased despatches under this head may now be looked for to replenish stocks.							
Food-grain	...	...	...	...	...	Mds.	9,140
This increase is entirely in downward traffic, and is due to slightly better prices offering in Calcutta.							
Gunny-bags	...	...	...	...	...	Mds.	8,495
This is a large increase for this time of year. It is now believed that this industry is firmly established. The demand for these bags for packing continues.							
Jute	...	...	...	...	...	Mds.	1,450
Small quantities of the new crop are already being forwarded, and a very early season for the northern districts is anticipated. The market in Calcutta is dull and very little business is doing.							
Piece-goods	...	...	...	...	...	Mds.	3,434
This increase can only be attributed to two causes—an increased demand, and a desire to stock local markets before the rains fairly set in and render roads in the interior difficult of access.							
Railway material	...	...	...	...	...	Mds.	29,489
Material for the Dinagepore extension and coal for the consumption of the Locomotive Department make up this increase.							
Salt	...	...	...	...	...	Mds.	32,175
Very large sales of salt have recently taken place in Calcutta, and despatchers have evidently seized the opportunity of stocking local markets.							

**DECREASES.**

Ginger	...	...	...	...	...	Mds.	2,058
The demand for this article has apparently subsided.							
Sugar	...	...	...	...	...	Mds.	546
During the past two months the upwards traffic in this staple showed signs of improvement, but it would appear from the above decrease that this was only temporary.							
The local manufacture of sugar is increasing	...	...	...	...	...	Mds.	725
Tea	...	...	...	...	...	Mds.	725
As already pointed out, comparison with the same period last year is unfair. The total quantity of tea despatched during the month was 14,316 maunds. This is only 725 maunds under last June's deliveries.							
Tobacco	...	...	...	...	...	Mds.	5,956
There is little or no demand for any description of tobacco.							
All other goods	...	...	...	...	...	Mds.	21,829
Last year's coal for the Darjeeling Himalayan Railway was included under this head, but since January 1883 it has been entered under "Railway material" which will explain the decreases which have recently been noted under this heading.							

**Statement shewing Increases and Decreases in Maundage of Staples carried over the Line during the month of June 1883.**

STAPLES.	1882.		1883.		Total in 1882.	Total in 1883.	Increase.	Decrease.
	Up.	Down.	Up.	Down.				
Ale	...	...	565	...	1,154	...	565	1,154
Food-grain	...	...	46,186	51,278	41,540	65,064	97,464	1,06,604
Ginger	...	...	163	3,443	...	1,548	3,666	1,548
Gunny-bags	...	...	181	5,282	484	13,474	5,463	13,958
Jute	...	...	156	36,599	83	38,122	36,755	38,295
Piece-goods	...	...	6,191	30	9,651	4	6,221	9,655
Railway material	...	...	7,754	4,397	38,767	2,933	12,151	41,640
Salt	...	...	30,320	...	68,967	128	36,320	68,495
Sugar	...	...	1,211	90	755	...	1,301	755
Tea	...	...	...	15,041	...	14,318	15,041	14,316
Tobacco	...	...	179	46,222	308	39,137	45,401	39,445
All other goods	...	...	62,962	15,400	38,574	16,959	76,362	54,533
Total	...	1,61,868	1,74,782	1,99,623	1,90,685	3,36,650	3,90,308	.....

TRAFFIC SUPERINTENDENT'S OFFICE; Saidpur, the 12th July 1883.

G. S. LEONARD, Traffic Superintendent.

**Report of Fluctuation of Traffic on the Eastern Bengal Railway for the month of April 1883.**

**EASTERN BENGAL RAILWAY COMPANY, TRAFFIC SUPERINTENDENT'S OFFICE, SEALDAH TERMINUS.**

No. W43-264, dated Calcutta, the 4th July 1883.

From—C. F. CHADBURN, Esq., Acting Traffic Superintendent, Eastern Bengal Railway Company.

To—The Agent, Eastern Bengal Railway Company.

I HAVE the pleasure to forward herewith the usual comparative statement of traffic for the month of April last, as compared with the corresponding month of last year, and from which it will be observed that the gross weight carried over the line was maunds 12,40,471, or an increase of maunds 1,48,801 equal to about 13½ per cent over that of 1882.

The principal fluctuations for the period under report are as follows:—

	<i>Increases.</i>	Mds.
Jute	.....	1,23,747
.....	Although not equal to that of last month, the increase must still be considered as very satisfactory. The area under jute cultivation last year was far in excess of previous years, the yield being reckoned at 25 to 30 per cent greater; and it is gratifying to note that this additional contribution to carriage has been supplied almost entirely from our own stations and agencies, Serajgunge alone shewing maunds 41,000 over that for the same period last year. For loose jute in particular there was a large demand.	.....

Seeds ... ... ... ... ... ... ... ... 30,168 Mds

Under this heading is comprised principally linseed, mustard, and rape. The first the merchants have been buying in against a rise in the market; while in the latter (rapeseed) a considerable amount of business was done in the way of export.

**Sugar** ... ... ... ... ... ... ... ... ... 23,946 Mds

Exports of this commodity to the European markets were very large, owing to a partial failure in receipt of the usual supplies from Cuba.

The extra outturn at the factories of Kissengunge, Chooadangah, and Alamdangah accounts for this increased maundage.

**Tobacco** ..... 7,946 M.d.s.

eady demand for export, with favourable prices, induced up-country holders to reduce their stocks.

Gunny-bags 12,691 Mds

The greater activity in grain and other seeds demanded a larger supply of bags for the purposes of carriage, and the increase in this material must be ascribed to that cause. A good jute crop helped to this in no small degree.

entirely to large consignments of railway plant, &c., forwarded for the Dacca and Mymensing State and B

Gravitational-wave pulsar timing arrays 35/500 Mpc

This improvement on last year is due to the fact of large arrivals of wheat and new rice, the former to meet "time bargains."

*Decreases.*

through the diversion of the traffic from the Railway to the Chitpore canal.

Cotton ..... 5,834 Mds.  
Under this, the decrease is owing in a measure to the displacement of cotton last year by jute, for which there was a greater demand and yielded larger profits to the grower as the markets then stood; the markets at same time were very dull with but little enquiry for the month under report.

ury for the month under report.

The up-country stocks were so largely replenished after the reduction in duty last year, that the effect is still apparent by the decreased demand on the supplying depôt of Calcutta.

## EASTERN BENGAL RAILWAY.

*Statement showing Increases and Decreases in Maundage of Staples carried over this Line for the month of April 1883, as compared with that of the corresponding period of 1882.*

## Weekly Return of Traffic Receipts on Indian Railways.

## EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 14th July 1883 on 1,509 miles open.

	COACHING TRAFFIC.		MERCHANTISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TOTAL TRAIN-MILES RUN.				
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.				
							Rs. A. P.	Merchandise.	Total.		
Total traffic for the week ...	231,079	2,11,535 5 0	25,17,337 30	7,44,572 1 9	19,845 6 10	9,75,932 13 7	63,326	155,017 1	218,341		
Or per mile of railway ...	140 2 11	.....	493 6 9	13 2 5	646 12 1	.....	.....	.....	.....		
For previous 1 week of half-year ...	206,542	2,24,420 14 0	26,36,512 30	8,16,637 4 0	19,746 7 11	10,60,804 9 11	63,467	176,815 1	240,282		
Total for 2 weeks ...	437,621	4,35,956 3 0	51,53,850 20	15,61,209 5 9	39,591 14 9	20,36,757 7 6	120,793	331,832 1	458,623		
<b>COMPARISON.</b>											
Total for corresponding week of previous year ...	178,443 1	2,09,376 14 11	21,77,327 20	5,00,698 10 0	17,134 3 3	8,25,200 12 2	49,764	106,831	156,611		
Per mile of railway corresponding week of previous year ...	.....	138 15 4	.....	898 0 2	11 5 11	548 5 5	.....	.....	.....		
Total to corresponding date of previous year ...	377,766	4,23,158 13 6	47,30,310 20	12,53,291 15 6	29,400 8 4	17,65,851 5 4	105,990	220,895	335,580		

## EASTERN BENGAL RAILWAY

Approximate Return of Traffic for week ended 14th July 1883 on 206 1/4 miles open.

	COACHING TRAFFIC.		MERCHANTISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TOTAL TRAIN-MILES RUN.				
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.				
							Rs. A. P.	Merchandise.	Total.		
Total traffic for the week ...	53,258	28,268 0 0	21,77,793 0	42,379 0 0	1,526 0 0	72,173 0 0	7,568 1	6,539	14,26		
Or per mile of railway ...	258	136 11 7	1,053 16	204 15 8	7 6 1	310 1 4	.....	.....	.....		
For previous 1 week of half-year ...	67,673	34,144 0 0	1,95,094 0	38,163 0 0	143 0 0	72,450 0 0	8,051 1	6,400 1	14,45		
Total for 2 weeks ...	120,931	62,412 0 0	412,887 0	80,542 0 0	1,609 0 0	1,44,623 0 0	15,720 1	12,939 1	28,66		
<b>COMPARISON.</b>											
Total for corresponding week of previous year ...	41,979	25,685 0 0	2,57,373 0	44,874 0 0	91 0 9	70,656 0 0	6,141 1	6,865 1	13,00		
Per mile of railway corresponding week of previous year ...	214	140 8 10	1,498 21	261 4 5	0 8 4	411 5 7	.....	.....	.....		
Total to corresponding date of previous year ...	108,217	59,652 0 0	4,71,196 0	75,876 0 0	468 0 0	1,35,996 0 0	12,970 1	18,290	28,26		

Includes Rs. 157 on account of Revenue stores.

## EASTERN BENGAL RAILWAY COMPANY.

Bengal Central Railway Approximate Return of Traffic for week ended 14th July 1883. { Ranaghat Section 20 1/4 } Miles open 35 { Dum-Dum, 14 1/4 } Total.

	COACHING TRAFFIC.		Weight carried.	Receipts.	Other earnings (estimated).	Total earnings.	TOTAL TRAIN-MILES RUN.						
	Number of passengers.	Coaching receipts.					Coaching.						
							Rs. A. P.	Merchandise.	Total.				
Total traffic for the week—													
Ranaghat Section ...	2,587	729 0 0	11,745 0	256 0 0	11 0 0	996 0 0	276	303	581				
Dum-Dum do. ....	7,796	898 0 0	8,602 0	67 0 0	7 0 0	972 0 0	574	53	627				
Or per mile of railway—													
Ranaghat Section ...	125	35 2 1	566 1	12 5 5	0 8 6	48 0 0	.....	.....	.....				
Dum-Dum do. ....	547	63 0 3	603 26	4 11 3	0 7 10	68 3 4	.....	.....	.....				
For previous 1 week of half-year—													
Ranaghat Section ...	2,718	743 0 0	18,745 0	100 0 0	11 0 0	854 0 0	277	303	581				
Dum-Dum do. ....	7,016	814 0 0	452 0	37 0 0	10 0 0	861 0 0	559	67	626				
Total for 2 weeks—													
Ranaghat Section ...	5,355	1,472 0 0	30,490 0	356 0 0	22 0 0	1,850 0 0	559	608	1,116				
Dum-Dum do. ....	14,812	1,712 0 0	9,054 0	104 0 0	17 0 0	1,833 0 0	1,135	120	1,254				
Total of both Sections ...	20,147	3,184 0 0	39,544 0	460 0 0	39 0 0	3,683 0 0	1,687	729	2,414				

## PATNA AND GYA STATE RAILWAY.

Approximate Return of Traffic for Week ended 30th June 1883, on 57 1/2 miles open.

	COACHING TRAFFIC.		Weight Carried	Receipts.	Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.						
	Number of passengers.	Coaching receipts.					Coaching.						
							S. A. P.	Merchandise.	Total.				
Total traffic for the week ...	8,941	4,617 1 0	57,350 20	3,813 15 0	83 3 0	6,514 3 0	1,697	869	9,570				
Or per mile of railway ...	156	80 11 6	1,032 30	66 10 10	1 7 3	148 13 7	.....	.....	.....				
For previous 24 weeks of half-year ...	315,108	1,64,213 7 6	8,90,525 0	77,529 12 3	2,552 6 6	2,44,295 10 3	43,872	16,431	66,306				
Total for 25 weeks ...	325,049	1,68,330 8 6	9,47,875 20	81,343 11 3	2,635 9 6	2,52,803 13 3	45,969	17,302	62,871				
<b>COMPARISON.</b>													
Total for corresponding last six days of previous year ...	* 5,934	+ 3,756 15 3	* 26,181 10	+ 3,201 1 5	+ 583 5 1	+ 7,541 5 9	* 1,273	* 1,244	* 3,53				
Per mile of railway corresponding period of previous year ...	10,	65 14 7	459 20	55 2 6	10 3 0	132 4 10	.....	.....	.....				
Total to corresponding date of previous year ...	292,095	1,87,311 15 0	9,10,934 0	1,00,563 7 0	3,276 10 4	2,91,152 0 4	37,961	33,725	70,681				

\* Represents approximate figures, as audited figures are not obtainable.

† Represents the audited figures of the corresponding period of previous year.

## BENGAL PROVINCIAL RAILWAYS.

## Weekly Statement of Traffic Receipts.

Latest return received.	Name of Railway.	Length open.	RECEIPTS FOR WEEK ENDING		TOTAL RECEIPTS FROM 1ST JANUARY		Total increase in 1883.	Total decrease in 1883.	Percentage of increase or decrease.
			10th June 1883.	9th June 1883.	To 10th June 1882.	To 9th June 1883.			
1883.		Miles.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs.
6th June	... Northern Bengal	230	34,365 0 0	38,748 0 0	8,67,076 0 0	10,45,887 0 0	1,75,791 0 0	.....	+23
9th Ditto	... Tirhoot	158 $\frac{1}{2}$	13,725 0 0	19,314 0 0	3,14,841 0 0	3,79,238 0 0	64,397 0 0	.....	+20
16th Ditto	... Calcutta and ...	43	2,530 0 0	5,948 0 0	82,662 0 0	1,57,391 0 0	54,729 0 0	.....	+66
Ditto	... South-Eastern.								
	Nalhati	27 $\frac{1}{2}$	1,301 0 0	1,613 0 0	32,860 0 0	38,180 0 0	5,320 0 0	.....	+16
	Total	459	51,921 0 0	65,623 0 0	12,97,459 0 0	16,60,096 0 0	3,03,237 0 0	.....	+23

(a.)—This column includes the supplementary figures for the quarter ended 31st March 1883.

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

## Weekly Statement of Traffic Receipts.

The latest return received.	Length open.	RECEIPTS FOR WEEK ENDING		TOTAL RECEIPTS FROM 1ST JANUARY		Total increase in 1883.	Total decrease in 1883.	Percentage of increase or decrease.
		17th June 1882.	16th June 1883.	To 17th June 1882.	To 16th June 1883.			
16th July 1883	... 50	Rs. A. P. 6,503 7 9	Rs. A. P. 10,711 5 9	Rs. A. P. 1,57,547 7 3	Rs. A. P. 1,74,804 15 8	Rs. A. P. 17,257 8 5	.....	+10 $\frac{1}{2}$

Calcutta, the 17th July 1883.

GILLANDERS, ARBUTHNOT &amp; Co., Agents.

[REGISTERED No. 29.]

No. 31 of 1883.



# SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, AUGUST 1, 1883.

## OFFICIAL PAPERS.

*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.*

### CONTENTS.

	Page.		Page.
RETURNS of Joint-Stock Companies for 1882-83 ...	1149	STATEMENT of Rainfall in Bengal for the week ending Friday (6 p.m.), the 27th of July 1883 ...	1156
Liberality of Baboo Rup Lall Das and Baboo Rughunath Das of Dacca	1150	Statement showing the results of the Registration of Births and Deaths in the First Class Municipalities in Bengal during the week ending 14th July 1883 ...	1162
Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal as reported to Government during the week ending the 25th July 1883 ...	1151	Results of the Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 22nd to 28th July 1883 ...	1164
Results of the Meteorological Observations taken at the Alipore Observatory from 22nd to 28th July 1883 ...	1153	Statement showing heights over mean sea level and low-water on Rivers Ganges, Bhaviruthiee, and Brahmapootra for the month of June 1883 ...	1165
Meteorological Report of the Province of Bengal for the week ending 27th July 1883 ...	1154	Weekly Return of Traffic Receipts on Indian Railways	1166

### ERRATA.

#### RETURNS OF JOINT-STOCK COMPANIES FOR 1882-83.

At page 1062 of the Supplement to the *Calcutta Gazette* of the 18th July 1883, the Hong-Kong and Shanghai Banking Corporation "Limited" was erroneously shewn in the Returns of the Register of Joint-Stock Companies as having sustained a loss instead of as having cleared a profit of \$7,64,797.33 during the year 1882-83.

The entry in Statement No. VI should therefore run as follows :—

#### No. VI.

*Statement showing, in order of registration, the numbers and names of Joint-Stock Companies on the Register on the 31st March 1883, with their nominal and paid up capital, and their profit or loss as per Balance Sheets received, and date of such Balance Sheets.*

Number on Reg. list.	Names of Companies. Number of Registers borne by each Company.	Date of registration.	Nominal capital.	Paid up capital.	PROFIT OR LOSS AS PER LAST BALANCE SHEET FILED.		Date of last Balance Sheet.	REMARKS.
					Profit.	Loss.		
221	Hong-Kong and Shanghai Banking Corporation, Ltd.	7th April 1869 ...	Rs. 1,12,50,000	Rs. 1,12,50,000	\$ 7,64,797 <sup>33</sup>	.....	30th Dec. 1882 ...	* Capital \$50,00,000 Profit \$7,64,797.33.

---

LIBERALITY OF BABOO RUP LALL DAS AND BABOO RUGHUNATH  
DAS OF DACCA.

---

No. 1003, dated Calcutta, the 31st July 1883.

From—COLMAN MACAULAY, Esq., Secretary to the Government of Bengal, Municipal Department,  
To—The Commissioner of the Dacca Division.

I AM directed to acknowledge the receipt of your letter No. 506L, dated the 16th instant, stating, for the information of Government, that Baboo Rup Lall Das and Babu Raghunath Das of Dacca have made a donation of Rs. 10,000 (ten thousand) for the purpose of extending the embankments along the river, known as the Buckland Bund.

2. In reply, I am desired to request that you will be good enough to convey to these gentlemen an expression of the Lieutenant-Governor's appreciation of their liberality and public spirit. The correspondence will be published in the *Calcutta Gazette*.

---

No. 506L, dated Dacca, the 16th July 1883.

From—N. S. ALEXANDER, Esq., Officiating Commissioner of the Dacca Division,  
To—The Secretary to the Government of Bengal, Municipal Department.

I HAVE the honour to report, for the information of His Honour the Lieutenant-Governor of Bengal, that Baboos Rup Lall Das and Raghunath Das, residents of this town, Dacca, have very liberally made a donation of Rs. 10,000 for the purpose of extending the embankments along the river facing which is known as the Buckland Bund. As this will be a work of real utility and for the public good, I would recommend that the thanks of Government be given to the donors, and the matter of the gift published in the Gazette for general information.

---

## Rainfall, Weather, and State and Prospects of the Crops.

*Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different Districts of Bengal, as reported to Government during the week ending the 28th July 1883.*

No.	District, and date of return.	Rainfall at Sudder Station in inches.	Character of the weather, state and prospects of the crops, and state of health at date.
<b>BENGAL.</b>			
<i>Western Districts.</i>			
1	Burdwan, July 28 '83	2.17	Weather—hot with light showers of rain. Transplanting going on vigorously. Prospects fair.
	Culna .....	7.42	
	Cuttia .....	2.99	
	Raneeunge .....	3.02	
2	Bankura, " 28 "	2.86	Weather—hot and cloudy, with rain at intervals. Transplanting of the paddy crop still going on briskly. Other crops doing well. Public health good.
	Bishenpore .....	1.44	
	Maliara .....	1.53	
	Khatra .....	3.46	
3	Beerhoom, " 28 "	1.97	Weather—seasonable. Transplanting of rice crop well advanced. Prospects good. Prices of food-grains moderate. General health good. Some cases of cholera in south of district.
	Rampore Haut .....	1.79	
4	Midnapore, " 28 "	1.14	Weather—seasonable. Paddy crop has suffered slightly from excessive rain in the Contai sub-division. Prospects favourable. Public health fair.
5	Hooghly, " 28 "	1.68	Weather—seasonable. More rain is wanted both in Serampore and Jehanabad sub-divisions. Prospects of crops fair. Public health good.
	Howrah .....	2.31*	
	Oolooberia .....	3.35	Weather—cloudy and sometimes heavy rain. Crops flourishing. Sugarcane, <i>aus</i> rice and jute growing fast; <i>amun</i> rice being planted out.
6	24-Pergunnahs, July 30 '83	3.35*	Weather—hot with occasional rain. Early crops doing well. Transplanting of <i>amun</i> going on briskly. Public health good.
7	Nuddea, " 28 "	1.74	Weather—cloudy, rainy, and cool. State of crops fair. Mortality from fever increased. A few cases of small-pox reported from the Meherpore sub-division.
	Kooshtea .....	2.27	
	Meherpore .....	2.23	
	Chooadanga .....	2.68	
	Ranaghat .....	1.97	
8	Khooins, " 28 "	1.55	Weather—showery and cloudy. Ploughing for <i>amun</i> rice still going on. <i>Aus</i> rice has come up. Prospects favourable. Public health good.
9	Jessore, " 28 "	4.29	Weather—hot, with occasional heavy showers. Harvesting of <i>aus</i> crop will soon begin. A fair outturn is expected. Prospects of <i>amun</i> continue good. Fever reported from Sudder and Bongong sub-divisions.
	Jhenida .....	3.00	
	Magura .....	2.21	
	Narail .....	1.71	
	Bongong .....	4.70	
10	Moorshedabad, " 28 "	1.64	Weather—close, with occasional showers. The rain has done good to the standing crops. Transplanting of <i>amun</i> continues. Public health generally good.
11	Dinagepore, " 27 '83	1.4	Weather—hot with occasional clouds and rain. Rain is very much wanted. <i>Bhadoi</i> is to a certain extent suffering from, and transplanting of <i>amun</i> impeded by, want of rain. Rice selling at from 12 to 26 seers per rupee.
			Rain very uneven through the district, most on the north. Crops generally doing well, but heavy rain necessary.
12	Rajshahye, July 28 "	0.48	
	Nattore .....	2.75	
13	Rungpore, " 28 "	0.92	Weather—hot and cloudy, with slight showers of rain. More rain generally wanted for the transplanting of <i>amun</i> rice. <i>Aus</i> and jute are still being cut. <i>Maskalai</i> is being sown. Cholera still somewhat prevalent in certain parts of the district.
	Nilphamari .....	0.92	
	Gaibanda .....	1.62	
	Kurigram .....	0.63	
14	Bogra, " 28 "	2.32	Less rain has fallen this week, and the weather has been rather close in consequence. Transplanting of <i>amun</i> paddy going on. Jute and sugarcane doing well. More rain wanted. General health good, except a few cases of fever reported from Dhunat outpost.
15	Pabna, " 28 "	1.97	Weather—hot and close with light showers and southerly breeze occasionally. Prospects of crops good, and also health.
16	Darjeeling, " 28 "	5.35	Weather—seasonable. Harvesting of Indian-corn has commenced with average outturn. Transplanting of paddy commenced. Tea outturn to date below last year's. Cholera still hanging about.
17	Julpigoree, " 28 "	7.31	Weather—seasonable. <i>Bhadoi</i> paddy and jute backward in places. Other crops promising. Cholera still lingering in Julpigoree town and district.
	Cooch Behar, " 28 up to 25th.	4.68	
	Dinhata .....	9.47	Weather—generally cloudy and rainy. Transplanting of late rice going on. Cutting of early rice not yet finished. Prospects of jute continue good. Only a few cases of cholera heard of.
	Mathabhanga .....	11.11	
	Meckligunge .....	9.93	
<i>Eastern Districts.</i>			
18	Dacca, July 28 '83	2.54	Weather—seasonable. <i>Aus</i> paddy and jute are being cut. Sowing of <i>shail</i> and <i>roachin</i> paddy going on. Sugarcane, jute, mug, <i>maskalai</i> , <i>til</i> , <i>amun</i> , and <i>bhadoi</i> crops promising.
	Manickgunge .....	2.40	
	Munshigunge .....	2.73	
	Narsingunge .....	2.11	
19	Furreedpore, " 28 "	2.12	Weather—cool and generally fair. <i>Aus</i> and jute being cut. Prospects of late rice crop are still fair; but it will suffer much if the rivers do not rise, or if heavier rain does not soon fall. Rivers are unusually low, and rainfall is still very scanty. Sugarcane doing well. Public health generally good.
	Goalundo .....	5.01	
	Madaripore .....	1.75	
20	Backergunge, " 26 "	4.11	Weather—seasonable. Prospects of <i>aus</i> crop good. Cultivation of <i>amun</i> going on. General health good. Cattle-disease continues in parts of the sub-division of Patuakhali.
21	Mymensingh, " 27 "	2.77	Weather—air warm and moist, with cloudy sky. More rain wanted in Jamalpore and Tangail. The week's rain has brightened the prospects of the crops elsewhere. General health fair, but fever prevalent in south-east.
	Jamalpore .....	3.97	
	Kisboregunge .....	8.48	
	Attea .....	3.02	
	Netrokona .....	2.48	

\* For week ending 28th July.

No.	District. and date of return.	Rainfall at Sudder Station in inches.	Character of the weather, state and prospects of the crops, and state of health at date.
<b>BENGAL—concl.</b>			
<i>Eastern Districts.—concl.</i>			
CHITTAGONG DIVN.	22 Chittagong July 31 '83	4.84	Weather—rainy and hot. Prospects of crops fair. Transplanting of <i>amun</i> commenced. Cholera and cattle-disease not yet ceased. Prices steady.
	23 Noakholly, " 26 "	2.93	Weather—generally cloudy. Moderate rain at times. Wind southerly. Maximum temperature 84°1°. <i>Aus</i> paddy is being reaped. Transplanting of <i>amun</i> paddy continued.
	24 Tipperah, " 26 " Brahmbaria " "	1.54 1.34	Weather—seasonable. Prospects of crops favourable. Jute and early rice are being reaped. Public health generally good.
	25 Chittagong Hill, " 24 " Tracts.	4.40 3.95	Continued showers of rain throughout the week; strong winds south-west and south-east. <i>Jum</i> paddy doing well. Transplanting of <i>aus</i> begun in plough-lands.
	Hill Tipprah " 25 "	0.83	Weather—rather too dry for the season. <i>Amun</i> paddy is still being transplanted. Prospects of <i>salya</i> paddy and <i>til</i> fair. Public health good.
<b>BEHAR.</b>			
PATNA DIVN.	26 Patna July 28 "	3.64	Weather—seasonable. Sowing of <i>bhadoi</i> crops continues. Transplanting of rice seedlings commenced. Public health generally good.
	Behar " "	5.91	
	Dinapore " "	4.65	
	Barh " "	5.02	
	27 Gya, " 28 "	6.04	Heavy and almost continuous rainfall. Transplanting of paddy has commenced, but, in common with other agricultural operations, is interfered with by the excessive rainfall. Cholera is still causing a considerable mortality.
BHAGUIPORE DIVN.	28 Shahabad, " 28 " Buxar "	3.17 5.10	Weather—cloudy and fair at intervals. Rainfall plentiful. Prospects of crops on the ground favourable.
	Bhabooh " "	6.85	
	Sassaram " "	1.71	
	29 Durbhunga, " 28 "	1.57	Weather—cloudy and showery, not very hot. All prospects good. Transplanting going on well, in some places very forward. Prices rising slightly. Health good.
	30 Mozafferpore, " 28 " Hajeeapore "	1.88 1.99	Weather—cool and showery. Prospects of crops much improved by the rain. Transplanting of <i>aghani</i> rice going on everywhere. Public health generally good.
ORISSA.	Seetamurhee " "	1.82	
	31 Saran, " 28 " Sewan "	7.00 1.38	Weather—cloudy, with constant showers. Sufficient rain general throughout district. Prospects of <i>bhadoi</i> crops excellent. A spell of sunny weather desirable for weeding purposes. Transplanting of paddy in low lands going on. <i>Makai</i> in progress. General health good. Prices easy.
	32 Chumparun " 28 "	2.05	Weather—cloudy and rainy. The rain has done good to the standing crops, and appears to have been general throughout the district. Prospects of <i>bhadoi</i> crops excellent. Public health good.
	Monghyr July 28 '83 Beguserai "	... 5.44	Weather—hot and occasionally cloudy. Prospects of <i>bhadoi</i> and <i>aghani</i> crops good. Some cases of fever and cholera have appeared in Monghyr town and parts of the district. Public health generally good.
	Jamui " "	4.77	
CHOTA NAGPORE.	34 Bhagulpore, " 28 "	2.17	Weather—seasonable. Prospects of crops good.
	Purneah, " 28 " Kissengunge "	2.03 1.27	Weather—showery; not sufficient rain. Rain much wanted for transplanting; crops otherwise good. Health fair.
	Arrareah " "	1.18	
	36 Maldah, " 28 "	1.44	Weather—hot and cloudy, with occasional moderate showers; south-east wind prevailing. Prospects of crops continue fair, but more rain is wanted for their growth. Prices of food-grains stationary. Public health good.
	37 Sonthal Perghs, " 28 " Deoghar "	3.16 5.27	A good deal of rain everywhere; a break would be welcome. Everything promises well; but a little dry weather is needed for late Indian-corn.
South-West Frontier Agency.	Goddha " "	2.97	
	Rajmehal " "	1.61	
	Jamtara " "	3.12	
	Pakour " "	2.89	
	41 Hazaribagh, July 27 '83	2.60	Weather—cool and cloudy. <i>Sarad</i> rice being transplanted. <i>Beali</i> rice being weeded and harvested. State of crops reported favourably. Common rice selling at from 20 to 24 seers per rupee. Public health generally good.
CALCUTTA, STATISTICAL DEPT., The 31st July 1883.	42 Lohardugga, " 28 " Palamow "	0.69 1.55	Weather—rainy. Re-sowing and transplanting going on in some places. Weeding has commenced in the Khoorda sub-division. Prices stationary. Cholera reported from Khoorda, abating in town.
	43 Singbham, " 27 "	4.05 1.73	Weather—seasonable. Prospects of all crops on ground good. Cholera increasing in Husainabad; fresh outbreaks reported from Chattarpur (Palamow) and Torpa and Balumath thanas (head-quarters). Prices as before. No cattle-disease.
	44 Manbham, " 28 "	0.71 1.96	Weather—very little rain during the week; unusually dry for the season of the year. Agricultural operations in places somewhat retarded for want of rain. Prospects otherwise promising, and all crops doing well. General health good.
	45 Manbham, " 28 "	1.96	Weather—rainy and fairly cool. The rainfall of the week has been well distributed. Prospects of crops most promising. Public health good.

Published for general information.

COLMAN MACAULAY,  
Secy. to the Govt. of Bengal.

**Results of the Meteorological Observations taken at the Alipore Observatory from  
22nd to 28th July 1883.**

Month,	Date,	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure (Barometric) at 32° Fahr.	TEMPERATURE.				HYGROMETER.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
1883		(0)	Inches.	0	0	0	0	0	0	Inches	0	%			Inches.	
July	22nd	155.3	7	29.471	84.0	88.7	9.5	79.2	80.4	0.993	79.0	86	SW by S and S ..	68	Nil	Cloudy, o, g.
"	23rd	158.7	1	29.462	81.7	85.6	7.6	78.0	78.9	0.972	78.4	90	SW by W, S and SSW ..	80	1.16	Cloudy, o, g, p, d.
"	24th	150.3	10	29.458	84.2	88.5	9.8	79.2	79.8	0.962	78.1	82	SW and SSW ..	169	0.06	Chiefly cloudy, o, g, p.
"	25th	153.5	8	29.413	85.3	90.0	8.8	81.2	80.6	0.982	78.7	81	SW by S and SW by W.	157	Nil	Chiefly cloudy, o, lr.
"	26th	140.5	3	29.375	83.0	87.7	7.5	80.2	80.5	1.002	79.3	87	SW by W and W ..	81	0.31	Cloudy, o, g, d, t, p, lr.
"	27th	155.0	7	29.419	83.5	91.0	11.8	79.2	80.0	0.978	78.6	86	W by N and S ..	102	0.37	Chiefly cloudy, o, g, p, t, d.
"	28th	149.0	4	29.492	82.3	86.8	8.4	78.4	79.3	0.962	78.1	87	S and SSW ..	77	1.82	Chiefly cloudy, o, g, p, d.

The mean pressure of the seven days	... Miles.	29.441
The average pressure of the corresponding period for 24 years, S. G. Office	... Miles.	29.527
The total number of hours of bright sunshine of the seven days	... hours.	40
	e	
The mean temperature of the seven days	... °	83.5
The average temperature of the corresponding period for 24 years, S. G. Office	..	83.1
The extreme variation of temperature during the seven days	..	13.0
The maximum temperature during the seven days	..	91.0
	Miles.	
The highest velocity of the wind in one hour during the seven days	... lbs.	13
	tbs.	
The highest pressure of the wind on one square foot during the seven days	... Not measurable	
	%	
The mean relative humidity during the seven days	... %	85
The average relative humidity of the corresponding period for 24 years, S. G. Office	..	87
	Inches.	
The total fall of rain from 22nd to 28th July 1883	... .	3.72
The average fall of the corresponding period for 24 years, S. G. Office ..	..	3.45
The total fall from 1st January to 28th July 1883	..	31.31
The average fall of the corresponding period for 24 years, S. G. Office ..	..	33.06

The mean pressure, temperature &c., are deduced from the traces of the Barograph and Thermograph, and from observations made at 6h, 10h, 16h, and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified, and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard Newman's No 86 formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The direction of the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

o overcast, g gloomy, p passing temporary showers, d drizzling rain, t thunder, lr lightning reflection.

JOHN ELIOT,

METEOROLOGICAL OFFICE, INDIA,  
The 30th July 1883.

For Meteorological Reporter to the Government of India.

## Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISIONS	DISTRICT	Representative station.	STATION OBSERVATIONS.													
			AIR PRESSURE.			WIND.		TEMPERATURE.								
			Mean barometer height, 10 A.M.	Mean reduced to sea-level.	Variation from mean.	Pervailing direction.	Mean wind velocity miles per day.	Highest during week.	Lowest during week.	Mean maximum temperature.	Mean minimum temperature of week.	Mean daily temperature of week.	Variation from normal mean of week.	Mean 10 A.M. temperature.	Average humidity at 10 A.M. for week.	Average cloud amount at 10 A.M. for week.
Orissa.	Pooree	Gopalpore	29°519	29°569	—	S	274	83°6	75°8	82°9	79°2	81°0	—	80°9	86	77
		False Point	29°518	29°539	+0°78	WSW	267	89°0	75°1	87°1	77°4	82°2	+1°7	82°3	85	91
	Cuttack	Cuttack	29°459	29°539	+0°75	WSW	79	89°4	75°8	86°8	77°6	82°1	+1°9	83°3	77	76
	Balasore	Balasore	29°447	29°506	—	SW	151	90°9	77°2	87°2	78°2	82°7	—	84°3	84	77
	South-West Midnapore	Saugor Island	29°490	29°516	+0°03	SW	370	88°2	77°0	85°8	80°2	83°0	+0°7	84°4	83	73
	South 24-Pergunnahs															
	Midnapore	Midnapore	29°370	29°504	—	Variable	?	91°5	77°8	88°1	77°8	83°0	—	85°5	80	67
	24-Pergunnahs															
	Howrah	Calcutta	29°480	29°501	+1°40	SW	106	90°0	77°2	87°8	79°2	83°5	+0°1	84°5	80	86
	Hooghly															
	Burdwan	Burdwan	29°398	29°498	+1°13	Variable	82	93°6	78°4	90°0	79°7	84°8	+0°2	84°8	76	90
	Bankura															
	Bengalbhoom	Raniganj	29°135	—	—	Variable	?	99°5	77°3	90°8	77°9	84°4	—	83°8	85	57
	West Burdwan															
	Moorshedabad	Berhampore	29°429	29°495	+1°14	SW	108°6	91°1	78°8	89°6	79°6	84°6	+0°1	84°9	83	100
	Nuddea															
	Jessore	Jessore	29°487	29°520	+0°05	Sandy	78°9	92°4	77°8	90°5	79°6	85°1	+1°2	85°0	86	97
	Khoolna															
	Chittagong	Chittagong	29°488	29°578	+1°01	SE	154	86°1	75°0	84°2	75°8	80°0	+1°5	82°0	86	68
	Chittagong Hill Tracts	Demagri														
	Backergunj	Barrisal	29°507	—	—	NW	416°6	86°6	73°4	84°9	90°2	82°6	—	83°8	87	51
	Noakholly	Noakholly														
	Furreedpore	Furreedpore	29°481	—	—	S	149°9	89°5	74°9	87°8	78°2	83°0	—	84°6	84	61
	Dacca	Dacca	29°490	29°526	+1°06	SSE	106	90°8	78°7	88°8	80°0	84°4	+0°8	86°0	82	87
	Commillah	Commillah	29°518	29°554	—	SE	65	85°1	77°7	83°5	77°8	80°7	—	83°5	81	58
	Mymensingh	Mymensingh	29°504	—	—	SE	171	90°3	78°0	88°4	78°5	83°5	—	82°4	84	99
	Bogra and Pubna	Serajgunj														
	Rajshahye	Rampore Beaulonh	29°398	29°471	—	Variable	254	93°6	78°5	91°5	79°9	85°7	—	85°9	80	50
	Dinagepore	Dinagepore	29°389	—	—	SE	154	90°6	78°1	89°9	78°9	84°4	—	83°9	83	86
	Rungpore	Rungpore	29°508	—	—	SE	130	91°8	78°0	90°1	78°9	84°5	—	85°4	81	73
	Julpigoree	Julpigoree	29°196	—	—	?	137	91°0	77°1	89°3	78°9	83°7	—	84°1	86	79
	Cooch Behar															
	Darjeeling Hill Districts	Darjeeling	29°522	—	—	E & ENE	69	69°6	56°7	67°9	58°3	63°1	—	64°5	95	94
	Shahabad	Dehree	29°151	29°504	—	SW	?	88°4	70°0	84°1	71°1	77°7	—	82°1	77	79
		Buxer	29°231	29°473	—	Variable	123	88°4	77°7	85°4	78°6	82°2	—	83°1	87	90
	Gya	Gya	29°094	29°470	+1°46	W & V	51	89°3	73°8	86°6	74°7	80°7	+1°6	83°6	83	100
	Patna	Bangipore	29°296	29°479	+1°07	Variable	99	92°4	75°2	88°5	79°2	83°9	+0°9	83°6	85	97
	South Bhagulpore	Bhagulpore	29°324	29°467	—	ESE	89	92°4	79°0	89°8	79°6	84°6	—	85°7	80	40
	Moanghyr															
	Sonthal Pergunnahs	Doomka	28°984	—	—	SE	—	89°4	76°2	87°1	77°4	82°3	—	84°8	88	50
	Purneah	Purneah	29°361	29°486	+1°28	E	41	92°2	78°3	90°5	79°2	84°9	+0°8	80°8	84	94
	North Bhagulpore															
	Mosufferpore	Durbhunga	29°323	29°487	+1°13	ESE	123	90°9	80°0	88°9	80°6	84°7	+0°4	84°6	87	73
	Durbhunga															
	Chumparun	Motihari	—	—	—	E	—	86°6	76°9	84°3	79°0	81°7	—	85°1	79	92
	Sarun	Chupra	29°271	—	—	E	27	98°5	75°5	90°1	79°9	85°1	—	83°1	94	93
	Hazaribagh	Hazaribagh	27°509	29°498	+0°86	SW & NW	199	85°4	78°1	81°6	73°7	77°7	+1°3	77°1	90	82
	Lohardanga	Ranchoo	27°411	29°518	—	—	—	84°0	69°4	81°9	71°3	76°6	—	76°9	86	82
	Manbhoom															
	Singhbhoom	Chybasra														

*Explanation of Summary.—The normal means of air pressure and temperature are the arithmetical averages or means of the readings during the same period. The humidity of the atmosphere is expressed as a percentage, saturated air being represented by 100. A clear sky is denoted by 0 and an overcast sky by 100. The normal means are the numerical means or averages of the rainfall in that district determined from the returns sent in by the sub-divisions of that district, (i.e.) the total rainfall at the sub-divisional stations in the district sending in returns divided by the number of stations. A rainy day is denoted by 100. The average humidity at 10 A.M. for week is the average of the weekly humidity at 10 A.M. for each day of the week. The average cloud amount at 10 A.M. for week is the average of the weekly cloud amount at 10 A.M. for each day of the week.*

the week ending 27th July 1883.

DISTRICT OBSERVATIONS.												METEOROLOGICAL DIVISION.	
Of week.		Since 1st of month.			Since 15th May.			Average number of rainy days during the week.	Normal number of rainy days of week.	Representative station.	DISTRICT.		
Mean for district.	Normal mean for district.	Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.						
3'16	3'25	13'52	11'6	+2'36	30'78	21'75	+9'03	3'5	4'2	Gopalpore	... False Point	POOREE	
1'34	3'40	12'60	11'54	+1'06	29'56	22'10	+7'46	3'3	3'8	Cuttack	... Balasore	CUTTACK BALASORE	
2'10	3'05	11'93	11'80	+0'13	29'82	21'55	+8'27	4'2	4'0	Saugor Island	... Saugor Island	South-West Midnapore	
2'69	3'27	16'96	12'65	+4'31	28'73	25'06	+3'07	2'7	4'5	Midnapore	... Midnapore	South 24-Pergunnahs	
1'71	2'46	10'00	10'24	-0'24	18'17	22'28	-4'11	3'0	3'9	24-Pergunnahs	... Calcutta	24-Pergunnahs	
6'02	3'21	12'74	10'00	+2'74	23'75	22'93	+0'82	4'8	4'9	Howrah	... Hooghly	HOWRAH HOOGHLY	
2'98	2'53	13'42	8'39	+5'03	26'45	19'69	+6'76	5'0	5'8	Burdwan	... Bankura	BURDWAN BANKURA	
2'44	2'49	13'35	10'06	+3'29	29'04	22'64	+6'40	5'0	4'5	Raniganj	... Beerbhoom	BEERBHOOM WEST BURDWAN	
2'18	1'59	9'34	8'77	+0'57	23'14	20'64	+2'50	5'0	4'2	Berhampore	... Moorshedabad	MORSHEDABAD	
2'65	2'02	8'80	8'44	+0'45	20'32	22'11	-1'79	3'2	4'0	Nuddea	... Jessore	NUDEA JESSORE	
3'08	2'18	11'58	8'99	+2'59	23'00	25'31	-2'31	5'7	4'7	Khoolun	... Chittagong	CHITTAGONG CHITTAGONG HILL TRACTS	
4'48	6'93	21'37	25'22	-3'85	74'34	59'98	+14'36	6'5	5'6	Chittagong	... Demagri	CHITTAGONG DEMAGRI	
1'35	5'93	9'61	14'91	-5'30	30'38	58'41	-8'03	7'0	5'6	Backergunj	... Barrisal	BACKERGUNJ BARRISAL	
1'77	4'14	12'11	15'41	-3'30	31'79	40'55	-8'76	5'0	5'9	Noakholly	... Noakholly	NOAKHOLLY	
2'93	5'27	15'77	19'81	-1'04	62'24	53'74	+8'50	5'0	5'8	Furreedpore	... Furreedpore	FURREEDPORE	
2'76	2'69	11'76	9'39	+2'37	23'64	26'90	-3'26	6'0	4'8	Dacca	... Commillah	DACCA COMMILLAH	
2'35	3'07	15'08	10'85	+4'23	26'05	29'03	-2'98	4'3	4'6	Commillah	... Mymensingh	COMMILLAH MYMENSINGH	
1'14	3'53	15'41	11'69	+3'72	36'83	34'29	+2'54	4'5	5'0	Surajgunj	... Rampore Beauleah	SURAJGUNJ RAMPORE BEAULEAH	
2'61	3'48	11'57	11'87	-0'30	25'18	34'22	-9'04	5'3	4'6	Rajshahye	... Dinagepore	RAJSHAHYE DINAGEPORE	
1'88	2'58	9'93	10'18	-0'25	23'93	26'53	-2'65	4'0	4'0	Dunglepore	... Rungpore	DUNGEPORE RUNGPORE	
1'66	1'71	6'95	10'33	-3'38	19'64	23'80	-4'16	5'3	4'2	Rungpore	... Julpigoree	RUNGPORE JULPIGOREE	
1'39	2'88	5'83	10'88	-5'05	20'21	20'74	-0'53	5'5	4'1	Dehree	... Coach Behar	DEHREE COACH BEHAR	
1'41	3'13	6'38	13'42	-7'04	22'77	42'61	-19'84	3'8	3'7	Shahabad	... Bankipore	SHAHABAD BANKIPORE	
4'87	4'85	15'72	17'80	-2'17	47'13	60'32	-18'19	5'6	4'7	Buxar	... Bogra and Purneah	BUXAR BOGRA AND PURNEAH	
8'41	7'81		36'84			81'79		6'5	6'0	Darjeeling	... Dinagepore	DARJEELING HILL DISTRICTS DINAGEPORE	
3'59	3'04	9'71	9'75	-0'04	17'70	15'71	+1'99	5'7	3'9	Monghyr	... Sonthal Pergunnahs	MONGHYR SONTHAL PERGUUNNAHS	
4'98	2'44	12'61	9'36	+3'25	23'92	16'15	+7'76	5'5	3'5	Purneah	... North Bhagulpore	PURNEAH NORTH BHAGULPORE	
6'88	2'17	11'67	9'52	+2'15	28'41	16'83	+11'48	6'0	3'8	Patna	... South Bhagulpore	PATNA SOUTH BHAGULPORE	
2'81	2'41	8'07	9'51	-1'44	19'84	17'66	+2'18	5'0	4'2	Bhagulpore	... Mozufferpore	BHAGULPORE MOZUFFERPORE	
2'72	2'19	9'92	10'39	-0'47	23'30	21'45	+1'85	5'7	4'3	Dumka	... Durbhunga	DUMKA DURBHUNGA	
1'98	3'54	7'06	12'50	-5'44	31'21	25'91	+5'30	4'2	4'1	Chunar	... Chumparun	CHUNAR CHUMPARUN	
2'83	2'38	6'94	9'85	-2'91	23'90	18'26	+5'64	5'5	3'3	Manbhoom	... Lohardugga	MANBHOOM LOHARDUGGA	
2'97	2'98	8'77	10'31	-1'54	15'13	20'17	-5'04	3'7	3'2	Hazaribagh	... Chupra	HAZARIBAGH CHUPRA	
6'27	3'20	12'80	10'12	+2'08	22'66	17'63	+5'03	5'5	3'6	Sarun	... Ranchoo	SARUN RANCHEE	
4'67	3'02	18'49	11'18	+2'31	21'13	21'00	+0'04	5'5	4'9	Hazaribagh	... Chyebassa	HAZARIBAGH CHYEBASSA	
2'96	2'36	12'68	11'56	+1'07	24'96	20'78	+4'18	5'3	4'7	Lohardugga	... Singhbhoom	LOHARDUGGA SINGHBHOOM	
2'65	3'96	10'91	11'28	-0'37	20'46	25'47	-5'01	3'0	4'0	Manbhoom	... Singhbhoom	MANBHOOM SINGHBHOOM	

for the past 12 years. The variations are *negative* when the mean for the week is less than the corresponding normal mean and *positive* when greater. The number denoting cloud amount represents the part of the sky covered, the whole sky being denoted by 10. Under the head "district observations" for the period in question during the past 12 years. The "means for the district" are the numerical averages of the rainfall returns received one on which at least an hundredth of an inch fell.

## Statement of Rainfall in Bengal for the week ending Friday (6 p.m.), the 27th of July 1883.

Meteorological division.	District.	Station.	RAINFALL.						Total.		Total rainfall from 1st to 27th July.	Average total rainfall from 1st to 27th July.	Total rainfall since 15th May.	Average rainfall from May to date.
			Saturday, 21st July.	Sunday, 22nd July.	Monday, 23rd July.	Tuesday, 24th July.	Wednesday, 25th July.	Thursday, 26th July.	Number of rainy days.	Rainfall weeks.				
ORISSA	Poree	Poree	0'25	.....	.....	.....	0'10	0'35	2'82	4	3'52	12'33	9'71	32'23
		Khurdah	.....	0'27	.....	.....	0'54	0'32	0'67	4	1'30	13'80	12'07	33'67
		Banpur	.....	0'10	.....	.....	0'78	.....	1'50	3	4'38	9'41	4'93	25'79
		False Point	.....	1'39	.....	.....	1'36	0'18	3	2'03	13'76	12'96	34'28	
	Hookitola	0'33	.....	.....	.....	1'17	.....	.....	.....	.....	.....	.....	.....	
Cuttack	Jagatsingapore	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9'33	.....	.....
	Banki	0'06	0'34	0'19	0'50	.....	0'17	.....	.....	6	1'75	12'03	12'33	40'91
	Cuttack	0'64	1'60	.....	0'07	0'61	0'48	0'15	.....	2	2'67	10'39	10'70	29'42
	Kendrapara	.....	.....	.....	.....	.....	0'59	0'20	.....	3	1'50	0'79	12'41	10'05
Balasore	Jajpore	.....	.....	.....	.....	.....	0'25	.....	1'25	2	1'50	15'12	13'43	32'38
	Chandballi	0'02	.....	.....	.....	0'09	0'00	0'02	4	1'03	11'93	11'40	39'11	
	Bhuddruck	.....	.....	.....	.....	2'49	0'18	.....	1	2'67	10'39	10'70	29'42	
	Sorah	0'39	.....	.....	.....	0'70	0'60	.....	3	1'50	0'27	11'01	27'1	
	Balasore	0'81	0'52	0'16	.....	0'68	0'19	0'11	6	1'87	0'40	12'07	30'77	
SOUTH-WEST BENGAL	Jedasore	1'00	0'70	.....	0'44	0'70	.....	4	2'84	13'73	13'46	31'00	.....	
	Baripodal	0'11	0'29	1'27	.....	0'33	0'08	0'59	6	2'67	13'15	12'08	30'60	
	Midnapore	Contai	0'01	.....	3'24	.....	0'05	1'21	4	4'51	19'01	12'88	33'91	
	Sauger Island	.....	.....	3'48	.....	.....	.....	.....	1	3'48	16'90	12'94	30'46	
	Tamluk	1'00	.....	.....	.....	1'50	.....	.....	2	2'50	13'00	9'32	21'40	
24 Pergunnahs	Midnapore	0'03	0'51	0'36	.....	0'11	0'13	5	1'14	5	7'67	9'46	15'30	
	Ghatal	0'53	.....	.....	.....	0'53	.....	0'97	2	1'50	9'35	11'90	17'73	
	Diamond Harbour	.....	1'23	1'38	.....	.....	.....	0'48	3	3'09	14'96	12'17	21'81	
	Alipore Jnll	0'48	0'02	1'19	0'08	.....	0'20	0'43	6	2'40	11'50	10'42	21'41	
	Barrackpore	0'41	.....	0'70	.....	0'73	0'12	4	1'96	13'09	9'71	24'42		
Howrah	Dum-Dum	0'37	0'41	0'53	.....	0'32	0'25	5	1'88	5	14'05	9'48	23'87	
	Barnet	0'13	0'14	0'48	0'03	.....	0'57	5	1'35	5	8'70	23'76		
	Huseerhat	0'22	0'26	0'67	.....	0'51	0'29	5	2'65	5	16'07	10'07	31'62	
	Howrah	0'15	0'34	0'78	.....	0'28	0'46	5	2'01	5	9'45	10'18	19'34	
	Mohesrka	0'02	0'15	0'60	.....	0'04	0'2	1'97	6	2'98	12'58	10'94	21'54	
Hooghly	Serampore	0'45	0'17	0'22	.....	0'05	1'00	0'95	6	2'94	12'78	10'28	24'50	
	Hoogly	0'88	0'71	.....	.....	.....	.....	0'69	3	1'65	17'46	9'53	28'54	
	Jehanabad	0'29	.....	0'01	.....	.....	.....	0'62	3	0'82	7'57	10'55	18'39	
	Burdwan	2'35	0'62	.....	.....	0'33	1'65	4	4'95	14'54	8'68	26'40		
	Burdwan	0'81	0'06	0'02	0'06	0'09	0'10	6	1'14	6	16'68	8'21	31'72	
Bankoora	Cutwa	0'40	.....	0'70	0'10	1'55	0'11	5	2'86	5	9'18	8'32	21'33	
	Raneeungunge	0'35	0'04	.....	.....	1'45	0'17	4	2'01	4	19'99	9'38	41'72	
	Bankoora	0'05	.....	0'46	.....	2'30	0'05	4	2'86	5	15'30	9'63	23'84	
	Bishenpore	0'07	0'03	0'37	0'27	0'07	0'20	0'43	7	1'44	5	8'54	9'43	
	Maliara	0'51	.....	0'45	.....	0'10	0'47	4	1'53	4	10'19	8'55	23'90	
Beerbboom	Khatra	0'24	.....	1'88	.....	0'37	0'97	4	3'46	4	9'91	14'35	21'46	
	Bh. Soory	0'70	0'23	0'08	0'01	0'09	0'51	0'25	7	1'97	17'07	9'62	39'83	
	Hetampore	0'50	0'23	0'08	.....	2'74	0'45	5	3'80	5	13'00	9'38	24'67	
	Nudde	2'50	2'40	.....	.....	1'80	.....	.....	3	4'70	12'12	9'10	23'40	
	Bongong	2'00	.....	.....	.....	1'80	.....	.....	2	3'86	15'81	7'78	28'75	
Khoolna	Kanngat	0'80	.....	.....	.....	0'91	0'83	3	2'54	6	6'30	8'67	12'50	
	Kishnanghur	0'80	.....	.....	.....	0'70	0'55	5	2'73	7	7'03	8'41	14'32	
	Choomangura	0'80	0'48	0'20	.....	0'36	.....	3	1'57	6	6'65	7'96	10'69	
	Meherpore	0'59	.....	0'62	.....	0'18	.....	3	1'70	6	6'23	8'72	23'96	
	Kooshitea	1'38	0'14	.....	.....	0'18	.....	3	1'70	6	6'23	8'72	23'96	
Jessore	Satkira	0'20	1'25	1'10	.....	0'15	0'38	5	3'08	16'61	9'70	31'34		
	Begirhat	0'42	0'66	0'29	.....	0'03	0'13	0'57	6	3'90	12'10	11'68	22'50	
	Khoolna	0'12	0'18	0'52	.....	0'03	0'13	0'57	6	1'55	8'59	9'52	23'00	
	Narail	0'31	0'88	0'45	.....	0'07	0'25	1'22	6	2'78	9'12	6'85	21'07	
	Jessore	0'56	0'84	0'21	0'08	0'35	1'47	0'98	7	4'49	12'48	8'54	26'87	
Moorshedabad	Jhenidah	2'05	0'38	.....	0'10	0'36	0'15	5	3'04	5	9'82	8'15	20'83	
	Magoorah	0'22	0'65	0'26	.....	1'01	0'63	5	2'74	5	12'42	8'51	26'06	
	Kandi	1'02	0'53	0'61	.....	0'36	0'07	5	2'59	11'70	10'20	25'13		
	Rampore Haut	0'74	.....	0'48	.....	0'22	0'38	4	1'82	10'07	7'52	23'63		
	Lalbagh	0'33	0'63	0'34	0'18	0'56	0'13	6	1'97	8	8'21	9'03	22'21	
Chittagong	Azimzunge	1'11	.....	0'36	.....	0'42	0'42	3	1'89	9	9'13	7'91	20'79	
	Jungipore	0'84	0'31	0'26	0'66	0'43	0'90	0'93	7	3'43	11'26	7'71	25'07	
	Lalgola	0'26	0'17	.....	.....	1'05	0'25	0'18	5	1'82	7'30	9'43	21'25	
	Cox's Bazar	1'41	0'20	0'23	1'43	0'92	0'15	0'27	7	4'61	22'14	33'47	78'66	
	Chittagong	0'39	0'10	.....	1'02	2'69	0'07	0'97	6	4'34	20'59	16'96	67'54	
Backergunge	Rangamati	0'47	0'02	0'11	0'02	0'54	0'02	0'17	7	1'35	9'93	15'80	31'42	
	Ruma	0'14	0'65	0'69	0'50	.....	0'15	0'20	8	0'44	13'35	8'99	32'18	
	Agartola	0'09	.....	.....	.....	0'15	.....	.....	3	0'09	.....	.....	.....	
	Patuakhally	0'85	0'55	0'06	.....	0'22	0'22	4	1'78	15'50	18'24	36'03		
	Perozepore	0'17	0'23	0'87	0'39	0'07	0'2							

## Statement of Rainfall in Bengal for the week ending Friday (6 p.m.), the 27th of July 1883—concluded.

Geographical division.	District.	Station.	RAINFALL.							TOTAL.		Average total rainfall from 1st to 27th July.	Total rainfall since 15th May.	Average rainfall from 15th May to date.			
			Saturday, 21st July.	Sunday, 22nd July.	Monday, 23rd July.	Tuesday, 24th July.	Wednesday, 25th July.	Thursday, 26th July.	Friday, 27th July.	Number of rainy days.	Rainfall of week.						
ORTH BENGAL	Purnea	Purnea	1.28	0.68	0.06	0.36	.....	1.10	0.19	5	1.97	8.24	7.58	21.23	22.99		
		Serajgunge	2.10	0.80	.....	.....	.....	.....	4.00	3	4.00	11.37	8.96	27.59	24.36		
	Bogra	Sherpore	0.40	.....	1.33	0.09	.....	.....	.....	1	0.40	8.12	12.89	16.28	30.29		
		Nawabnilla	0.60	0.03	0.02	0.20	0.86	.....	.....	4	2.07	7.89	10.93	16.81	23.64		
		Bogra	0.85	0.51	0.02	0.20	0.86	.....	.....	5	2.44	11.86	12.88	25.14	30.94		
		Panchbibi	0.59	0.17	0.03	0.27	0.50	.....	.....	5	1.26	7.32	12.47	19.55	27.64		
	Rajshahye	Beunleah	0.22	0.04	.....	0.16	.....	0.03	0.03	5	0.48	5.05	10.32	14.56	23.11		
		Nattore	0.10	0.50	.....	1.25	0.90	.....	0.30	5	3.05	6.35	11.03	16.00	23.25		
	Maldah	Maldah	0.05	0.22	0.83	.....	0.23	0.05	0.06	6	1.44	9.43	9.61	21.39	22.94		
	Dinapore	Mohadebpore	0.04	0.04	0.39	0.15	0.70	.....	0.45	6	1.77	8.61	10.88	17.67	31.93		
		Churaman	0.18	0.02	0.44	0.08	0.64	.....	.....	5	0.76	4.92	9.06	18.64	23.72		
		Raijunge	0.17	0.29	0.04	0.74	0.31	0.06	6	1.61	4.89	10.89	18.98	30.58	33.90		
		Dinapore	0.98	0.32	.....	0.09	0.03	0.02	.....	5	1.44	5.13	12.69	21.12	33.90		
		Baloorhat	.....	.....	1.40	0.48	.....	.....	2	1.88	5.93	.....	.....	.....	.....		
	Rungpore	Bhawanigunge	0.15	0.07	.....	0.90	1.20	.....	4	2.32	8.91	9.89	30.56	30.65	30.65		
		Rungpore	0.54	0.09	0.12	.....	0.13	0.04	.....	5	0.92	5.02	10.66	22.25	42.97	42.97	
		Korigram	0.55	.....	.....	.....	0.85	.....	2	1.40	3.88	13.65	26.60	45.23	45.23		
		Baguogra	0.52	0.25	.....	.....	0.15	0.08	4	1.00	7.21	13.45	30.35	54.59	54.59		
	Julpigoree	Julpigoree	0.87	0.48	0.41	.....	2.78	2.14	0.63	6	7.31	17.43	23.62	58.67	59.32	59.32	
	Cooch Behar	Dinhatta	0.41	0.19	.....	.....	0.57	0.29	.....	4	1.46	11.77	10.74	55.37	55.99	55.99	
		Cooch Behar	1.63	0.45	.....	.....	0.70	2.78	0.05	5	5.61	17.96	19.73	53.06	64.20	64.20	
		Miekligunge	0.53	0.19	0.23	.....	0.39	3.00	0.02	6	4.36	14.43	16.64	46.18	58.49	58.49	
		Matabihanga	1.24	0.65	0.30	0.12	0.72	2.56	0.01	7	5.63	17.03	18.73	57.58	63.43	63.43	
	Darjeeling Hill.	Buxa	0.64	0.58	0.50	2.64	6.40	0.72	.....	6	11.48	27.63	46.45	79.20	105.74	105.74	
		Siliguri	0.85	0.30	0.02	.....	0.73	0.80	0.18	6	2.88	14.52	.....	.....	.....	.....	
		Darjeeling	0.66	0.97	0.86	1.04	0.09	0.72	0.11	7	5.35	27.26	54.56	54.56	54.56	54.56	
		Kalimpong	0.52	.....	1.87	0.41	1.80	0.18	.....	5	4.78	11.63	.....	.....	.....	.....	
ORTH BEAR	Purneah	Kissengunge	0.29	.....	0.35	0.02	.....	0.50	.....	4	1.16	8.87	15.11	33.58	33.81	33.81	
		Arrareah	.....	.....	0.46	.....	.....	.....	1	0.46	6.11	13.96	35.39	39.91	39.91	39.91	
		Purneah	0.17	1.19	0.14	0.18	.....	0.37	.....	5	2.05	7.09	12.35	18.35	26.59	26.59	
	North Bhagulpore.	Maddipore	0.11	2.96	0.20	0.45	0.15	1.12	0.05	7	4.98	10.71	10.84	58.92	19.57	19.57	
		Soopool	0.39	.....	0.20	.....	0.65	0.12	.....	4	1.27	2.65	10.43	27.25	29.34	29.34	
	Durbhunga	Tajpore	.....	0.19	0.30	0.09	2.35	0.21	5	3.14	9.79	10.24	24.50	17.73	17.73	17.73	
		Durbhunga	0.07	0.41	0.53	.....	0.64	0.12	0.04	6	1.81	4.82	10.50	23.06	18.03	18.03	
		Madhubani	0.63	0.10	0.67	0.20	2.96	0.30	0.31	7	5.17	8.52	8.63	24.59	18.44	18.44	
	Mozafferpore	Sitamarhi	0.69	0.13	.....	0.88	.....	0.32	4	2.02	5.24	9.49	13.25	19.00	19.00	19.00	
		Mozafferpore	0.47	0.12	0.05	0.07	0.80	0.30	0.07	7	1.88	7.28	10.68	28.15	18.44	18.44	
		Hajipore	0.49	.....	0.54	.....	1.60	0.35	4	2.98	6.11	9.82	21.83	16.98	16.98	16.98	
	Chumparun	Motibari	0.13	.....	.....	1.02	0.85	0.05	4	2.05	8.01	8.61	14.92	18.40	18.40	18.40	
		Bettiah	.....	.....	.....	0.32	3.20	0.86	3	4.38	10.64	11.63	16.61	22.41	22.41	22.41	
		Gopalgunge	.....	0.02	.....	0.43	1.43	0.60	4	2.48	7.67	10.68	13.88	19.67	19.67	19.67	
		Sewan	0.25	0.27	0.77	.....	0.09	3.72	0.44	6	5.54	12.10	10.86	19.93	19.48	19.48	
		Chuprah	0.23	1.84	0.94	.....	3.33	0.66	5	7.00	13.48	9.37	25.35	15.77	15.77	15.77	
OUTH BEAR	Shahabad	Buxar	1.17	0.02	0.12	0.69	0.50	0.27	0.28	7	3.05	11.43	9.59	19.31	14.84	14.84	
		Dehree	1.20	0.06	0.23	0.15	0.47	0.20	6	2.31	5.55	12.65	10.20	15.95	16.32	16.32	
		Bhubocah	1.94	0.64	.....	0.20	0.07	3.10	5	2.79	7.33	10.39	15.77	16.13	16.13	16.13	
		Sasseram	0.17	0.43	0.43	1.08	6.21	0.00	5	3.17	5.61	8.95	17.29	15.52	15.52	15.52	
		Arrah	0.75	0.94	.....	0.12	0.03	0.61	.....	6	4.33	14.67	8.92	25.89	15.12	15.12	
	Gya	Aurungabad	0.64	0.31	.....	0.22	0.12	4	1.29	7.59	10.44	17.59	16.60	16.60	16.60	16.60	
		Gya	1.53	1.28	0.06	2.16	0.02	0.70	0.29	7	6.04	14.83	9.21	31.32	16.55	16.55	16.55
		Nowadah	0.33	1.39	0.21	2.63	.....	2.76	0.15	6	7.77	15.35	8.87	21.79	16.35	16.35	16.35
		Jehannabad	0.73	0.25	2.45	.....	0.75	0.65	5	4.83	14.67	8.92	25.89	15.12	15.12	15.12	
	Patna	Patna	0.02	1.75	0.47	0.37	.....	0.97	0.06	6	3.64	8.10	9.42	23.08	17.57	17.57	17.57
		Dimapore	0.05	2.85	1.60	0.05	2.70	0.05	6	7.30	9.65	9.37	20.75	16.80	16.80	16.80	16.80
		Behar	1.44	0.83	0.82	0.52	2.23	6.45	0.18	7	12.47	19.26	9.53	45.31	16.95	16.95	16.95
		Barrh	0.92	3.25	.....	0.02	0.45	0.37	5	4.11	9.63	9.73	24.07	13.90	13.90	13.90	13.90
	Monghyr	Begosersi	0.12	0.47	0.41	0.31	.....	0.29	0.34	6	1.91	9.38	9.00	30.68	15.76	15.76	15.76
		Monghyr	0.21	0.15	0.23	.....	0.28	0.40	5	1.27	4.60	9.33	14.64	14.64	17.51	17.51	17.51
		Jamui	0.80	0.71	.....	0.62	3.98	.....	4	6.11	11.36	10.4					

**SUMMARY OF METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL FOR THE WEEK ENDING FRIDAY, 27TH JULY 1883.**

THE meteorology of the past week has been in some respects singular. At the end of the previous week (20th July), as was pointed out in last week's report, the continuance of westerly winds at the more westerly stations in South Behar and in Chutia Nagpur indicated that the influence of the Bombay branch of the monsoon current still extended over a considerable portion of the Province, and that the rainfall at that time was due to the combined action of the two currents. At the beginning of the week under review neither current was strong, and the Bombay current appears to have steadily decreased in intensity during the week. The combination of the two weakish currents gave fairly general rain, moderate in amount, at the commencement of the week. It decreased in amount and became less general on Sunday and Monday. Light unsteady winds prevailed over the whole Province on Tuesday. Skies also became much clearer. The barometer, which had risen for some days, began to fall on Monday. Pressure decreased slowly on that and the next day. Tuesday was comparatively a dry day over the Province, the rainfall consisting of a few light local showers.

At that time strong monsoon winds were almost certainly blowing over a large part of the Bay. This was indicated by the wind returns of the Ceylon stations and Diamond Island, and confirmed by the experience of vessels entering the river at the end of the week. The changes of wind direction at the head of the Bay also indicated that heavy rain was falling there, but that it was diffused over too large an area to give rise to a strong cyclonic whirl. The barometer, probably in consequence of this rainfall, fell rapidly on Wednesday and Thursday over the whole Province, and was nearly two-tenths of an inch below the average in South Bengal on Thursday morning. The result of this rapid fall of the barometer was to produce an area of shallow barometric depression over the Sunderbans, which was stationary on Friday, and then moved westward passing into the southern districts of Chutia Nagpur, where it apparently disappeared, after filling up on Sunday (the 29th).

The formation and establishment of this area of shallow barometric depression in South Bengal gave westerly winds on Wednesday over Chutia Nagpur, South Behar, and the western districts of South-West Bengal. These winds, combined with southerly winds in East Bengal, and easterly and northerly winds in North Bengal and North Behar, gave moderate cyclonic circulation of the air over a large part of the Province on Thursday and Friday. Light to moderate rain hence fell over the whole Province on Wednesday, and continued during the remaining days of the week, increasing slightly in amount. With the westward passage of the depression into Chutia Nagpur on Saturday, southerly winds set in again over the whole of Bengal, and brought up rain chiefly in short squalls. They are now giving fairly general rain over Bengal.

The barometer has been below the average during the week. The variations are large, ranging from an average for the week of '07" at Cuttack to '14" at Calcutta and '15" at Gya. Pressure has been for the past fortnight relatively high in Orissa and Chutia Nagpur. The temperature variations are not large, and depend mainly on the amount and distribution of the rainfall. Temperature was slightly above the average in North-East and North Bengal, and also in North Behar over which the rainfall of the week was below the average. Elsewhere it was slightly below the mean, except at Gya, where the average deficiency is  $4\frac{1}{2}$ . The highest temperatures during the week were recorded at Raneegunge, Burdwan, and Rampore Beaulah. Winds have been slightly irregular during the week. The mean feature during the past as during the previous week was the unusual predominance of westerly winds in Chutia Nagpur, South Behar, North Orissa, and the adjacent districts of South-West Bengal. The winds were normal in direction in other parts of the Province.

*Abstract for the week ending 27th July 1883*

METEOROLOGICAL DISTRICT.	TEMPERATURE						RAINFALL.									
	Highest observed during w.e.	Lowest observed during week	Average for week.			Average mean of week above or below normal mean week.	Of week.			Normal average number.	Variation.	Since 1st of month.	Since May 1st.			
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.							
Orissa	90°9	75°1	86°0	75°1	82°0	-1°8	2°25	3°21	-0°96	3°9	4°0	-0°1	12°02	11°54	30°44	21°73
South-West Bengal	99°5	77°0	88°9	79°1	84°1	+0°1	2°53	2°45	+0°68	4°5	4°4	+0°1	14°86	9°56	26°15	12°45
East Bengal	90°8	73°4	86°3	78°4	82°4	-0°4	2°29	2°67	-1°78	5°2	5°1	+0°1	14°36	13°83	33°86	38°30
North Bengal	93°6	77°1	90°2	78°9	84°6	-1	2°39	3°15	-0°76	4°6	4°3	+0°3	9°26	12°80	29°88	39°33
North Behar	92°4	70°0	86°9	76°8	81°0	-2°7	3°02	2°36	+0°06	4°8	3°6	+1°2	8°94	10°81	25°53	18°8
South Behar	98°5	75°5	89°8	79°9	84°9	+0°0	3°91	2°42	+1°52	5°6	4°0	+1°6	10°21	9°74	20°92	19°36
Chutia Nagpur	85°4	69°4	81°8	72°5	77°2	-1°5	3°55	2°83	+0°71	5°1	4°8	+0°3	12°68	11°69	22°09	22°13

The rainfall of the past week was considerably smaller in amount than during the previous week. The western half of the Province, including South-West Bengal, Behar, and

Chutia Nagpur, received amounts giving an average slightly in excess of the normal, except in South Behar, where the excess was over 60 per cent. The Gya, Bankipur, Chupra, and Hazaribagh districts received the most abundant rain.

The rainfall was in defect over East and North Bengal, and also in Orissa. The deficiency was on the whole greatest in East Bengal, but was also very considerable in some districts in North Bengal. It was most marked in the Barrisal, Noakholly Comillah, Dinaugore, Rungpore, and Purneah districts over which the rainfall during the week was from 30 to 50 per cent. of its normal amount. The deficiency in the rainfall was, however, not due to diminished cloud amount, or to a smaller number of rainy days, but was almost entirely owing to the lightness of the rain showers. Normal or abundant rain has been received during the present monsoon up to date in every part of the Province except the central districts of North Bengal and the northern districts of East Bengal.

*Saturday, 21st July.*—Pressure increased during the previous 24 hours at the great majority of stations. The rise was small, except in East Bengal and at Burdwan. Pressure was below the normal of the day by amounts which ranged from '04" at Chittagong to '14" at Gya. Temperature was increasing, but was below the average except at False Point and in North Behar. The mean temperature of the past 24 hours was  $1\frac{1}{2}^{\circ}$  in defect in South Bengal, and  $2\frac{1}{2}^{\circ}$  in South Behar and Chutia Nagpur. Winds were much lighter at the head of the Bay. They were south-easterly in East Bengal, south-westerly to westerly in South-West Bengal, easterly in North Bengal and North Behar, and variable in South Behar. Westerly winds continued at Dehree and Hazaribagh. The humidity of the air differed very slightly from normal, but was somewhat in defect in Orissa. The sky was overcast in East Bengal, South Behar, and Chutia Nagpur, and over the greater part of South-West Bengal. Elsewhere it was more or less clouded, except at Motiharee, where it was clear. General rain fell over the whole Province except in Orissa and the western districts of North Behar, where local showers were received. The rainfall was moderate in amount and fairly uniformly distributed. The largest rainfall recorded was 3·5 inches at Fenny.

*Sunday, 22nd July.*—Pressure increased slightly during the previous day at the majority of stations. The changes of pressure were unimportant, except at Chittagong and along the east coast of the Bay, where the barometer was falling rapidly. Pressure was below the normal over the Province by amounts ranging from '02" at False Point to '12" at Gya. Temperature was generally below the average at all stations. The mean temperature of the past 24 hours was  $3\frac{1}{2}^{\circ}$  in defect at Gya,  $2^{\circ}$  in Eastern Bengal, and  $1^{\circ}$  in South-West Bengal and Orissa. Temperature was highest in North Bengal, more especially at Rampore Beauleah, where the highest maximum temperature ( $91\cdot6^{\circ}$ ) was recorded. Winds were feebler than on the 21st, more especially at the head of the Bay, but were unchanged in direction. The air was damper again in Orissa. Humidity was unusually high over the greater part of Behar. The sky was overcast in Orissa and South Behar, but less clouded in South-West Bengal than on the 21st. Rain fell over the whole province during the previous 24 hours. The rain fell in showers, which gave amounts generally less than half an inch. They were on the whole lightest in North Bengal and Behar. Gya and Patna were the only districts which received moderately heavy rain. At Barrh 3·25 inches were registered, at Dinapore 2·85 inches, and at Patna 1·75 inches.

*Monday, 23rd July.*—Pressure began to decrease at the majority of stations. The changes of the previous 24 hours were otherwise not important, and pressure was considerably below the normal by amounts which ranged from '01" at False Point to '12" at Gya. Pressure was very uniform over North Bengal, Behar, and Chutia Nagpur. Temperature was below the average, except at Dacca and Purneah. The mean temperature of the past 24 hours was  $3^{\circ}$  below the normal in South Behar,  $1\frac{1}{2}^{\circ}$  in Orissa, and  $1^{\circ}$  in South-West Bengal and Chutia Nagpur. Winds diminished considerably in strength during the past 24 hours. Southerly winds prevailed generally in South-West Bengal, south-easterly in East and North Bengal, and easterly in Behar. The sky was overcast in South-West Bengal, Orissa, and in South Behar. It was lightly clouded in the central districts of North Bengal, and clear at Motiharee and Hazaribagh. Showers fell in nearly every part of the Province. They were light in East and North Bengal, North Behar, and the Sonthal Pergunnahs, and gave moderate rain to the greater part of South-West Bengal and South Behar. Heavy rain fell in the south of the 24-Pergunnahs and the Midnapore district, (where falls exceeding two inches were received at Saugor Island (3·48 inches), and Contai (3·24 inches). A few light unimportant local showers occurred in Orissa.

*Tuesday, 24th July.*—Pressure had fallen except in Orissa and East Bengal. The changes were again small, except in North Bengal, where a moderate fall of the barometer had taken place. Pressure was below the normal in all parts of the Province. The deficiency was small in Orissa and was largest in Behar. It ranged in amount from '02" at Cuttack to '16" at Purneah. The mean temperature of the previous 24 hours was  $2\frac{1}{2}^{\circ}$  below the average in Orissa,  $2^{\circ}$  in South Behar and Chutia Nagpur,  $1^{\circ}$  in South-West Bengal, and was normal in East Bengal and North Behar. Rampore Beauleah and Jalgoree registered the highest maximum temperatures ( $91\cdot6^{\circ}$  and  $91\cdot0^{\circ}$ ) respectively. Winds were generally slightly stronger than on the 23rd, but were unaltered in direction. The air was drier, more especially in South-West Bengal and Orissa, where the humidity was below the average. Skies were also less clouded, and were overcast at a few stations, chiefly in South Behar and Chutia Nagpur. Rainfall was much less general than for some days previous. A few local showers of no importance were received in Orissa and South-West

Bengal. Light to moderate showers fell in East Bengal, the southern districts of North Bengal and the Sonthal Pergunnahs and the Gya district. Falls exceeding two inches were recorded at Goalundo (2.72 inches), Nowadah (2.63 inches), and Gya (2.16 inches).

*Wednesday, 25th July.*—The barometer fell rapidly over the whole province, and more especially in East Bengal and South-West Bengal. Pressure was considerably below the normal by amounts which ranged from 08" at Cuttack to 2" at Purneah. Temperature increased during the previous 24 hours, and was generally above the average. The mean temperature of the past 24 hours was 1° in excess in South-West Bengal and  $\frac{1}{2}$ ° in North Behar. High maximum temperatures were recorded in South-West and North Bengal. The highest were 99.5° at Raneegunge, and 91.6° at Rampore Beauleah. Winds were moderate in force at the head of the Bay, although the gradients over the Bay were unusually high. Westerly winds were again extending and were established on this day over South Behar, Chutia Nagpur, Orissa, and the western districts of South-West Bengal. Humidity was slightly below the average in Orissa and South-West Bengal, and the greater part of East Bengal, and above it elsewhere, especially in South Behar. The cloud amount was somewhat greater than on the 24th, and sky was overcast at the majority of stations, except those in Orissa and East Bengal. Showers giving fairly general rain, moderate in amount, fell during the previous 24 hours in East and North Bengal and Behar. Rainfalls exceeding two inches were recorded at the following stations:—Madhubani (in the Durbhanga district) 2.92 inches, Julpigoree 2.78 inches, and Behar 2.23 inches. A few, local showers of little importance were received in South-West Bengal and Orissa.

*Thursday, 26th July.*—Pressure again gave way at the great majority of stations. The fall of the barometer was large over the east coast of the Bay of Bengal and in South-East Bengal. Pressure was below the normal of the day by amounts which ranged from 13" at Hazaribagh to 23" at Calcutta and 21" at Chittagong. An area of very slight barometric depression was now formed in South Bengal near the coast of the Sunderbunds. Temperature was high and above the average in South-West Bengal, Central, East Bengal and probably North Bengal. The mean temperature of the past 24 hours was 2° above the average in South-West Bengal. It was below it by amounts ranging from 1° to 5° in South and Central Behar. Light to moderate winds were blowing at the head of the Bay. Further south in the Bay strong monsoon winds were established. Westerly winds prevailed over Chutia Nagpur, South Behar, Orissa, and South-West Bengal. The combination of north-westerly winds in South-West Bengal and south-easterly winds in East Bengal gave a feeble cyclonic circulation in the southerly districts of Bengal towards and round the area of barometric depression. The air was generally slightly damper in South-West Bengal and was very moist at many of the Behar stations. The cloud amount was also greater. Westerly winds now gave overcast skies in Behar and Chutia Nagpur. Sky was least clouded in East Bengal. Fairly general rain fell in Orissa, South-West Bengal, Behar, and Chutia Nagpur.

The rainfall was generally light in South-West Bengal, but was moderately heavy in the Burdwan, Beerbhoom, and Nuddea districts. A few light local showers of little importance fell in East and North Bengal. The Julpigoree and Cooch Behar stations received heavy rainfalls varying between two and three inches in amount. General rain occurred over the whole of Behar and Chutia Nagpur, and was very heavy in the Chumparun, Patna, and Monghyr districts. The following were the largest amounts recorded:—Behar 6.45 inches, Jainui (in the Monghyr district) 3.9 inches, Sewan 3.72 inches, Chuprah 3.33 inches, and Bettiah 3.2 inches. Light to moderate rain fell in Orissa.

*Friday, 27th July.*—Pressure increased during the previous 24 hours at all stations except at Saugor Island, Cuttack, and Balasore. The rise was large in East and North Bengal and in North and Central Behar over which it averaged nearly a tenth of an inch. Pressure was below the normal of the day by amounts which ranged from 07" at Patna, Hazaribagh and Durbhanga to 18" at Calcutta. Pressure was lowest at Calcutta, which was the centre of the area of slight barometric depression that had moved westwards since the 26th. Temperature varied considerably from the normal. The mean temperature of the past 24 hours was 4° below the average for the day in Orissa, and from 4° to 7° below it in Chutia Nagpur and South Behar. It was from 1° to 3° above it in North and Central Behar and over the greater part of Bengal. Winds shifted considerably during the past 24 hours. They were of moderate force at the head of the Bay. They were south-easterly at the great majority of the Bengal stations, easterly in North Behar, north-easterly at Bhagulpore and Raneegunge, northerly at Gya, north-north-westerly at Hazaribagh, and westerly to south-westerly in Orissa, thus giving cyclonic circulation of air around and towards the area of barometric depression in South-West Bengal. The circulation was, however, feeble. The air was unusually dry in East Bengal and the central districts of North Bengal. The sky was overcast in Orissa and also generally in Behar and Chutia Nagpur, and was partly clouded in Bengal.

General rain fell over the same districts as on the 26th. The amounts recorded were generally smaller, and the rainfall more uniformly distributed. It was most general and heaviest in South Behar and Chutia Nagpur; and was light to moderate in Orissa and South-West Bengal. Rainfalls exceeding two inches were recorded at Bhuboobah (3.1 inches) and Pooree (2.02 inches), and rainfalls varying between one and two inches at Mohesraka, Chyebassa, Ranchee, Culna, Gobindpore, Narail, and Contai. Light showers fell at the great majority of stations in East Bengal, and a few local showers of no importance in North Bengal.

## MEMORANDA.

THE principal features in the vital statistics of the first class Municipalities in Bengal for the week ending 14th July 1883, as gathered from the subjoined table, are the following :—

(1.) That births were recorded in these Municipalities at the rate of 17·3 per 1,000 of population, against 16·9 per 1,000 in the preceding week ending 7th July, and deaths at 28·9 against 26·8 per 1,000, indicating an advance in the registration of both births and deaths.

(2.) That the highest proportions of births and deaths were returned by the under-mentioned Municipalities :—

	<i>Births.</i>		<i>Deaths.</i>	
		Ratio per mille.		Ratio per mille.
Burdwan	...	35·1	Poori	.. 117·7
Uterparah	...	28·3	Gya	.. 102·5
Gya	...	28·0	Darjiling	.. 44·4
Comillah	...	27·0	Patna	.. 35·7
			Comillah	.. 34·7
			Jessore	.. 30·6
			Bhagulpore	.. 28·0
			Burdwan	.. 27·5
			Hughli	.. 26·8
			Suburbs of Calcutta	.. 26·3

(3.) That the mean mortality from the various death-causes, in comparison with the mortality in the preceding week, stood as follows :—

	Ratio per 1,000 during the weeks ending	
	14th July.	7th July.
Cholera	..	6·3
Small-pox	..	·4
Fever	..	10·3
Bowel-complaints	..	4·4
Injury	..	·7
Other causes	..	6·8
		6·4

the noticeable points revealed by these figures are an increase in the mortality from cholera and bowel-complaints, markedly from cholera, and a decrease in the death-rates from fever and small-pox.

(4.) That while small-pox proved most fatal in only the Gya Municipality (3·4 per 1,000) and fever in Jessore (24·5 per 1,000), cholera and bowel-complaints exhibited the greatest activity in the following towns :—

	<i>Cholera.</i>	Ratio per mille.	<i>Bowel-complaints.</i>	Ratio per mille.
Poori	..	79·2	Poori	.. 19·3
Gya	..	58·1	Patna	.. 10·1
Comillah	..	15·4	Midnapore	.. 9·3
Mozufferpore	..	4·9		
Monghyr	..	4·5		
Hughli	..	4·0		

(5.) That excluding the death of one Budhist, which occurred in the Darjiling Municipality, the death-rates among the other denominations composing the population of these Municipalities were :—

		Ratio per mille.
Christians	...	33·0
Hindus	...	30·9
Mahomedans	...	24·1

(6.) That with regard to mortality referable to *Age*, the highest death-rates were registered among :—

		Ratio per mille.
Infants (under 1 year)	...	245·9
Children (of 1 and under 5 years)	...	53·4
Old men (60 years and upwards)	...	49·9

and the lowest among adults of 10 and under 15 years, viz. 14 per 1,000 of the living.

F. W. A. DEFAECK,

The 30th July 1883.

Officiating Sanitary Commissioner for Bengal.

Statement showing the Results of the Registration of Births and Deaths in the First Class Municipalities in Bengal during the week ending 14th July 1883.

DISTRICTS.	NAME OF MUNICIPALITIES.	POPULATION.				BIRTHS.				MORTALITY ACCORDING TO—				SEX.						
		Males.	Females.	Total.	Number.	Ratio per 1,000 of population per annum.	Deaths from—	Ratio per 1,000 of population per annum.	Comparison with previous periods.	DEATHS	Ratio per 1,000 of population per annum.									
Burdwan	Burdwan	18,063	16,017	34,080	17	6	23	25.9	9.2	283	2	8	18	31	...	12.2	27.5	32.5	80	
Murshidabad	Murshidabad	16,927	16,653	33,580	2	3	31	4.6	7.7	66	2	1	16	31	...	1.5	24.8	20.1	11	
Hugli	Hugli and Chinsurah	19,179	19,539	38,718	6	8	14	8.1	10.7	188	75	3	4	20	4.0	...	13.4	4.0	8.0	9
Serampore	Serampore	13,559	12,937	26,496	2	9	11	3.9	17.7	21.6	23	4	1	3	8	...	7.8	2.0	3.9	15.7
Howrah	Uttarpur	3,046	2,464	5,510	2	1	3	18.9	9.4	283	290	...	1	1	...	1	9.4	...	9.4	47.2
24-Parganas	Suburbs of Calcutta	60,989	44,639	105,628	12	13	25	5.9	6.4	12.3	92	...	13	4	1	4	2.9	5	2.0	14.3
Nuddea	Ranaghat	4,928	4,655	8,583	4	4	8	10	8.6	12.9	21.5	141	19	1	36	12.7	2.5	2.9	29.4	73
Jessore	Rampore Beulash	19,791	9,925	29,716	4	2	6	5.0	2.5	7.5	290	...	8	...	2	1	1.0	...	1.2	12.5
Rajshahi	Darjiling	4,579	2,439	7,018	1	1	1	7.4	...	24.0	No female births.	...	3	...	3	...	18.0	...	18.0	18.0
Dacca	Dacca	4,820	3,605	8,425	...	...	...	...	...	...	66	...	8	...	1	9	...	1.9	1.9	1.9
Dacca	(Narsinganj)	7,605	4,936	12,541	...	...	5	10.5	2.6	13.1	400	...	5	...	5	...	13.1	...	13.1	5.3
Chittagong	Chittagong	13,540	8,750	22,130	5	1	6	11.7	2.3	14.1	500	...	2	1	3	...	14.8	7.4	7.4	37.0
Tipperah	Comilla	8,153	5,353	13,506	4	3	7	15.4	11.6	27.0	133	4	2	...	3	9	15.4	...	15.6	20.7
Parsa	Fulta City	78,762	51,575	130,337	30	22	53	9.7	7.1	16.8	136	5	33	31	10	28	11.0	1.6	11.7	10.1
Gaya	Gaya	38,220	37,831	76,151	17	24	41	11.6	16.4	28.0	70	5	29	3	...	28	150	581	34	19.8
Shahabad	Arrah	26,920	23,505	48,425	3	8	11	3.6	9.6	13.2	37	...	9	3	2	5	10	...	10.7	3.6
Mymensingh	Mymensingh	23,054	19,658	42,712	13	6	19	15.8	7.3	23.1	216	4	8	...	6	18	4.9	...	9.7	7.3
Durhambazar	Durhambazar	33,774	32,922	66,096	16	13	29	12.6	10.2	12.8	123	2	1	9	7	...	6	24	1.8	7.1
Surin	Chunarib	26,044	27,203	53,949	6	8	14	5.9	7.8	13.7	75	...	1	6	7	...	4	18	...	17.6
Bhagalpur	Bhagalpur	29,640	27,513	57,163	14	10	24	12.7	9.0	21.7	140	...	1	17	3	...	10	31	...	9.9
Mohly	Mohly	28,154	29,366	57,529	11	10	21	9.9	9.1	19.9	110	5	5	7	...	5	22	4.5	6.3	4.5
Purneah	Purneah	8,463	6,653	15,016	4	4	...	4	13.9	No female births.	...	3	...	1	4	...	10.4	...	8.5	13.9
Woori	Woori	13,027	11,265	24,892	4	6	9	8.6	10.7	19.3	80	37	3	9	...	6	55	79.2	...	12.8
	Total	700,000,000	700,000,000	1,400,000,000	240	202	412	5.4	7.9	17.3	118	151	119	119	119	119	119	119	119	118

Data not available.

.

.

.

.

.

.

.

.

.

.

.

.

## MORTALITY ACCORDING TO—

## Age.

## Class.

DISTRICTS.	NAMES OF MUNICIPALITIES.	DEATHS AMONG—		RATIO PER 1,000 OF POPULATION PER ANNUM.		DEATHS.		RATIO PER 1,000 OF POPULATION PER ANNUM.	
		Hindus.	Brahmines.	Christians.	Buddhistes.	Other classes.	Hindus.	Brahmines.	Christians.
Burdwan	"	Burdwan	405	405	405	405	2290	4075	4075
Midnapur	"	Midnapur	5	5	5	5	291	218	218
Hugli	"	Hugli and Chinsurah	4	4	4	4	263	305	305
Serampore	"	Serampore	7	1	1	1	164	564	564
Ulupara	"	Ulupara	1	1	1	1	98	...	...
Howrah	"	Howrah	6	6	6	6	102	143	143
24-Pergunnahs	"	Suburbs of Calcutta	41	38	38	38	35	258	221
Kishmigar	"	Ranaghat	5	5	5	5	80	3970	3970
Nuddea	"	Sanipore	2	1	1	1	142	381	381
Jessore	"	Jessore	3	3	3	3	91	451	451
Rajshahye	"	Rampore Beanchah	4	1	1	1	231	4078	4078
Darjiling	"	Darjiling	3	3	3	3	52	212	212
Dacca	"	Dacca	6	5	5	5	163	106	106
Chittagong	"	Chittagong	2	2	2	2	82	169	169
Tipperah	"	Comillah	7	2	2	2	179	68	68
Patna	"	Patna City	22	1	1	1	28	23	23
Gya	"	Gya	35	1	1	1	906	1129	1129
Shahabad	"	Arab	16	3	3	3	612	141	141
Monserrapore	"	Monserrapore	10	6	6	6	173	333	333
Durbhangha	"	Durbhangha	19	5	5	5	204	148	148
Sarai	"	Sarai	115	35	35	35	24	25	25
Bhagalpur	"	Bhagalpur	24	6	6	6	137	314	314
Monghyr	"	Monghyr	19	3	3	3	221	124	124
Purneah	"	Purneah	1	1	1	1	314	113	92
Pooree	"	Pooree	65	60	60	60	1190	309	241
Total	"	Total	549	181	181	181	335	309	241

		Under 1 year.	1 and under 5 years.	5 and under 10 years.	10 and under 15 years.	15 and under 20 years.	20 and under 30 years.	30 and under 40 years.	40 and under 60 years.	60 and under 60 years.	60 and upwards.
Burdwan	10	8	...	...	...	2	2	2	2	2	1
Midnapur	13	5	...	...	1	1	1	1	1	1	1
Hugli	16	4	...	...	3	2	1	1	1	1	1
Serampore	7	1	...	...	1	2	1	1	1	1	1
Ulupara	1	1	...	...	1	1	1	1	1	1	1
Howrah	16	6	...	...	102	143	143	143	143	143	143
24-Pergunnahs	41	38	...	...	35	258	221	221	221	221	221
Kishmigar	5	5	...	...	80	3970	3970	3970	3970	3970	3970
Ranaghat	2	1	...	...	142	381	381	381	381	381	381
Sanipore	3	3	...	...	91	451	451	451	451	451	451
Jessore	2	2	...	...	231	4078	4078	4078	4078	4078	4078
Rampore Beanchah	1	1	...	...	1	1	1	1	1	1	1
Darjiling	3	3	...	...	52	212	212	212	212	212	212
Dacca	6	5	...	...	163	106	106	106	106	106	106
Narsinganj	1	2	...	...	82	169	169	169	169	169	169
Chittagong	2	2	...	...	179	68	68	68	68	68	68
Tipperah	7	2	...	...	5	1	1	1	1	1	1
Patna	22	1	...	...	1	1	1	1	1	1	1
Gya	35	1	...	...	1	1	1	1	1	1	1
Durbhangha	19	5	...	...	1	1	1	1	1	1	1
Sarai	115	35	...	...	612	141	141	141	141	141	141
Bhagalpur	24	6	...	...	173	333	333	333	333	333	333
Monghyr	19	3	...	...	385	286	286	286	286	286	286
Purneah	1	1	...	...	906	1129	1129	1129	1129	1129	1129
Pooree	65	60	...	...	179	68	68	68	68	68	68
Total	549	181	181	181	335	309	241	241	241	241	241

OFFICE OF SANITARY COMMISSIONER FOR BENGAL,  
The 30th July 1883.

F. W. A. DE FABECK,  
Offy. Sanitary Commissioner for Bengal.

Results of the Thermometrical Observations taken at the Meteorological Office,  
Chowringhee, from 22nd to 28th July 1883.

MONTH.	Date,	TEMPERATURE.				HYGROMETRY.				Rain
		Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	* Humidity.	
1883.		°	°	°	°	°	Inches.	°	%	Inches.
July	22nd	82.8	90.5	11.8	78.7	80.1	.909	79.0	88	0.07
"	23rd	80.7	86.0	7.8	78.2	79.4	.988	78.9	94	0.02
"	24th	82.9	90.2	10.6	79.6	80.1	.977	78.5	84	0.12
"	25th	84.7	91.3	9.9	81.4	80.6	.990	79.0	83	Nil.
"	26th	82.7	89.8	8.8	81.0	80.7	1.021	79.9	91	0.05
"	27th	82.8	91.3	11.5	79.8	80.7	1.020	79.8	91	0.11
"	28th	82.1	88.6	9.8	78.8	80.2	1.005	79.4	91	0.52

The mean temperature of the seven days ... ... ... 82.8  
 The extreme variation of temperature during the seven days ... ... 13.1  
 The maximum temperature during the seven days ... ... 91.3

The mean relative humidity during the seven days ... ... 89

The total fall of rain from 22nd to 28th July 1883 .. ... 1.79

The mean temperature and humidity are obtained by applying to the mean of the 10h, 16h, and minimum readings a correction dependent on the range, and derived from the hourly observations at the Surveyor-General's Office, Chowringhee, in past years.

METEOROLOGICAL OFFICE, INDIA,  
The 30th July 1883.

JOHN ELIOT,  
*For Meteorological Reporter to the Govt. of India.*

PUBLIC WORKS DEPARTMENT.—BENGAL

*Statement showing heights over mean sea-level and low water on Rivers Ganges, Bhagirathi, and Brahmapootra for the month of June 1883.*

Dated 27th July 1883.

Under Secy. to the Govt. of Bengal, P. W. Dept.

## Weekly Return of Traffic Receipts on Indian Railways.

## EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 21st July 1883 on 1,509 miles open.

	COACHING TRAFFIC.		MERCHANTISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TOTAL TRAIN-MILES RUN.				
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.		
							Rs. A. P.	Merchandise.	Total.		
Total traffic for the week ...	186,800	1,88,461 6 0	22,02,657 30	6,17,703 9 0	18,267 11 7	8,24,432 10 7	62,219	120,000 <sup>1</sup>	188,219 <sup>1</sup>		
Or per mile of railway ...	.....	124 14 3	.....	409 5 7	12 1 8	546 5 6	.....	.....	.....		
For previous 2 weeks of half-year ...	437,621	4,33,956 3 0	51,50,747 20	15,55,257 6 9	39,591 14 9	20,30,905 8 8	126,793	831,832 <sup>1</sup>	458,625 <sup>1</sup>		
Total for 3 weeks ...	624,421	6,24,417 9 0	73,53,405 10	21,72,960 15 9	57,859 10 4	28,55,238 3 1	189,012	437,832 <sup>1</sup>	646,844 <sup>1</sup>		
<b>COMPARISON.</b>											
Total for corresponding week of previous year ...	164,258	1,88,208 8 0	24,05,820 10	6,96,498 8 3	16,144 15 1	9,60,851 15 4	50,943	151,420	202,363		
Per mile of railway corresponding week of previous year ...	.....	124 14 7	.....	462 4 0	10 11 5	597 14 0	.....	.....	.....		
Total to corresponding date of previous year ...	542,024	6,11,867 5 6	71,36,130 30	19,40,790 7 9	45,545 7 5	26,06,703 4 8	156,942	381,315	533,257		

## BENGAL PROVINCIAL RAILWAYS.

Weekly Statement of Traffic Receipts.

Latest return received.	Name of Railway.	Length open.	RECEIPTS FOR WEEK ENDING		TOTAL RECEIPTS FROM 1ST JANUARY		Total increase in 1883.	Total decrease in 1883.	Percentage of increase or decrease.
			17th June 1882.	16th June 1883.	To 17th June 1882.	To 16th June 1883.			
1883.		Miles.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs.
16th June ...	Northern Bengal	230	36,300 0 0	38,632 0 0	(a) 9,07,856 0 0	10,84,519 0 0	1,76,563 0 0	.....	+19
23rd Ditto ...	Tirhoot	158 <sup>1</sup>	11,111 0 0	12,716 0 0	3,25,952 0 0	3,96,954 0 0	71,002 0 0	.....	+21
16th Ditto ...	Calcutta and South-Eastern.	43	2,313 0 0	5,942 0 0	(a) 85,038 0 0	1,43,333 0 0	58,295 0 0	.....	+63
23rd Ditto ...	Nalhati ...	27 <sup>1</sup>	1,455 0 0	1,990 0 0	34,315 0 0	40,170 0 0	5,855 0 0	.....	+17
	Total ...	459	51,179 0 0	64,280 0 0	13,85,161 0 0	16,64,976 0 0	3,11,815 0 0	.....	+23

(a) — These include the supplementary figures for quarter ended 31st March 1882.

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

Weekly Statement of Traffic Receipts.

The latest return received.	Length open.	RECEIPTS FOR WEEK ENDING		TOTAL RECEIPTS FROM 1ST JANUARY		Total increase in 1883.	Total decrease in 1883.	Percentage of increase or decrease.
		24th June 1882.	23rd June 1883.	To 24th June 1882.	To 23rd June 1883.			
27th July 1883 ...	50	Rs. A. P. 8,820 1 9	Rs. A. P. 5,254 4 9	Rs. A. P. 1,66,377 9 0	Rs. A. P. 1,78,059 4 5	Rs. A. P. 11,651 11 5	.....	+7 <sup>1</sup> <sub>4</sub>

N.B.—During this week communication was temporarily interrupted.

Calcutta, the 27th July 1883.

GILLANDERS, AEBUTHNOT &amp; Co., Agents.



# SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, AUGUST 8, 1883.

## OFFICIAL PAPERS.

*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.*

## CONTENTS.

	Page.		Page.
RESOLUTION on the Report of the Port Officer, Calcutta, for the year 1882-83	1167	WHOLESALE Prices-current of Food-grains, Firewood, and Salt in the undermentioned Marts of Bengal for the Fortnight ending 31st July 1883	1188
Resolution on the Report on the Calcutta Medical Institutions for 1883	1170	Meteorological Report of the Province of Beagal for the week ending 3rd August 1883	1190
Agricultural Prizes	1178	Statement of Rainfall in Bengal for the week ending Friday (6 p.m.), the 3rd August 1883	1192
Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal as reported to Government during the week ending the 4th August 1883	1179	Statement showing the results of the Registration of Births and Deaths in the First Class Municipalities in Bengal during the week ending 21st July 1883	1199
The following Statement shows the quantities of the principal staples of Traffic imported into Calcutta from the interior during the month of May 1883	1181	Results of the Meteorological Observations taken at the Alipore Observatory from 29th July to 4th August 1883	1201
The following Statement shows the values, quantities, and numbers of the principal staples of Traffic exported inland from Calcutta during the month of May 1883	1182	Results of the Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 29th July to 4th August 1883	1202
Statement showing the stock of Rice in and around Calcutta	1183	Statements showing the total amount of Traffic and Tolls on the Circular and Eastern Canals and Nuddea River's for the month of April 1883	1203
Prices-current of Food-grains, Firewood, and Salt in the districts of Bengal for the Fortnight ending 31st July 1883	1184	Weekly Return of Traffic Receipts on Indian Railways	1209

## RESOLUTION ON THE REPORT OF THE PORT OFFICER, CALCUTTA, FOR THE YEAR 1882-83.

## GENERAL DEPARTMENT—MARINE.

*Calcutta, the 7th August 1883.*

## RESOLUTION.

## READ—

The Annual Report of the Port Officer, Calcutta, for 1882-83.

THE report is submitted by Lieutenant Brebner, who assumed charge of the department at the close of the year, on the departure of Lieutenant Stiffe on furlough. Mr. Yates, Deputy Conservator of the Port, officiated as Port Officer for three months of the year.

2. The total strength of the Pilot Service at the end of the year, inclusive of 27 leadsmen apprentices, four of whom arrived during the year, was 89. Two casualties occurred among the pilots during the year; but as three leadsmen apprentices passed the pilot's examination the number of qualified pilots was raised from 61 to 62. It was proposed by the Port Officer that the rules for the promotion of leadsmen apprentices should be so relaxed as to admit of first-mate leadsmen appearing at the pilot's examination after holding their first mate's certificates for one year, without their having actually served in that capacity on board the pilot brigs; but the Lieutenant-Governor was unable to sanction the proposal. No public inconvenience was shown to have as yet arisen from the strict enforcement of the rule requiring leadsmen apprentices to do duty as first mates on board the pilot brigs.

for at least one year before their admission to the rank of pilots ; and it was, therefore, deemed inexpedient to remit any portion of the training on board the brigs which has hitherto been insisted on. The system of obtaining the leadsmen apprentices from the training ships at home continues to work well ; but the Port Officer rightly draws attention to the necessity for a very stringent medical examination of the candidates in England and for carefully testing their powers of vision.

3. The number of arrivals during the year was 1,157 vessels, with a gross tonnage of 1,982,187 tons, and of departures 1,141 vessels, with a gross tonnage of 1,979,107 tons, showing an increase of 160 vessels and of 379,205 tons, inwards and outwards, over the previous year. The year under review therefore shews the largest number of ships that has ever been recorded for any year, except 1877-78, when the Madras famine caused an unusual development of the export trade in grain. Of the total number of arrivals and departures (2,292), 1,238 were steamers and 1,054 sailing ships, and of the latter 1,006, or 95·4, made use of tugs in proceeding up and down the river under pilotage charge. There was a further increase in the number of vessels of heavy draught, which has risen so greatly in recent years, as shown by the following statement of vessels which drew 21 feet and upwards on their way up and down the river :—

	Above 21 to 22 feet.		22 to 23 feet.		23 to 24 feet.		24 to 25 feet.		25 to 26 feet.		26 to 27 feet.		Total 1882-83.		Total 1881-82.	
	In.	Out.	In.	Out.	In.	Out.	In.	Out.	In.	Out.	In.	Out.	In.	Out.	In.	Out.
Steamers	32	84	34	106	14	89	5	42	1	3	...	2	86	325	63	306
Sailing vessels	64	134	29	60	4	19	1	...	...	...	...	...	98	213	89	184
Total	96	218	63	165	18	108	6	42	1	3	...	2	184	639	152	490

The increase not only in the number but also in the draught of vessels has obviously added to the difficulty of pilotage in the Hooghly, as well as increased the work of the Pilot Service ; and the Lieutenant-Governor is, therefore, glad to learn that the conduct of the Service generally continued very satisfactory during the year.

4. The earnings of the pilots have necessarily grown with the increase in the shipping of the port. During the year the Branch Pilots piloted on an average 5·23 vessels a month, the masters 4, and the mates 3, these averages being such as to afford ample remuneration to each grade, and to leave no room whatever for complaint. Forty-three vessels were also placed in charge of leadsmen apprentices, in the temporary absence of pilots in each case. While, however, the earnings of the Pilot Service have been larger, the mercantile community has also benefited considerably from the reduction of pilotage by 15 per cent. carried out on the 1st August 1881. The amount thus remitted in the past year was Rs. 1,53,878.

5. The year was unfortunately marked by a large increase in the number of casualties to vessels in charge of pilots, 51 cases of grounding and 25 collisions having occurred against 33 cases of grounding and 12 collisions in the previous year. The groundings resulted, in one case, in the total loss of the vessel, and in another in considerable damage ; but in most of the remaining cases no damage was done. In five cases the pilot was warned, and in one case he was placed on half-earnings for three months. Of the collisions eighteen were either unimportant or accidental, and of the remaining seven cases one was due to the mismanagement of the pilot, three to country boats, and one to the unskilfulness of the steam-tug pilot. Seven were attended with no damage, thirteen with damage, and one with serious damage. In one case an inland steamer, in another a steam-tug, and in two cases boats were sunk. The total casualties of the year gave a percentage of 3·31 on the number of ships, as compared with 2·106 in the previous year.

6. Two Marine Courts and seven departmental enquiries were held during the year to investigate the conduct of pilots in connection with casualties which had occurred to vessels in their charge. In one case, already referred to, the pilot was severely censured and reduced to half-earnings for three months for grounding his ship on the edge of the Gasper Sands, and in another

a steam-tug pilot was suspended for 12 months for unskilfulness in causing a collision between the vessel in tow of his steamer and another vessel riding at anchor in Diamond Harbour. The other cases resulted in the acquittal of the pilots. Besides these enquiries into the conduct of pilots, five Special Courts were convened under Act IV of 1875, to enquire into casualties to ships, and two investigations were held to ascertain the cause of the loss of the inland steamers *Oude* and *Goalpara*, in Garden Reach and the Sunderbuns respectively. The most important of the cases which came before the Special Courts were the wreck of the barque *Mohusser*, on Saugor Sand on the 1st May 1882, with the loss of 36 lives, including 25 native passengers, and the stranding and abandonment of the barque *Aberdeenshire*, on Subtermooke shoal, in the Sunderbuns, on the 6th October 1882. The Court, in the former case, blamed both the master and the pilot; but the latter on being subsequently tried under Act XII of 1859, was acquitted. In the case of the *Aberdeenshire* the loss of the vessel was proved to have been caused by the unskilfulness of the commander; and it is to be regretted that he was not placed on his trial by the Court. The inland steamer *Oude* was sunk in consequence of collisions with two vessels in Garden Reach; and the inland steamer *Goalpara* by grounding on a mud lump at the junction of two rivers in the Sunderbuns. In both cases the masters were exonerated from blame.

7. The S. S. *Undaunted*, besides making the usual trips to the pilot and light-vessels at the Sandheads and visiting the Mutlah and the Orissa ports, was used during the year to tow a hulk laden with mooring tackle and an anchor boat to Chittagong, and to lay a whistling buoy on the South Patch Shoal lying beyond that port. One of the pilot brigs having been condemned, only two were available for service at the Sandheads during the year. The Lieutenant-Governor regrets the inconvenience which was, in consequence, occasionally caused to the shipping. A new brig is expected to reach the Port from home shortly.

8. Ninety-one candidates appeared for examination for colonial and local certificates of competency of the various grades, of whom 65 passed. The colonial certificates granted comprised 6 master's, 11 first mate's, 2 second mate's, 2 first class engineer's, and 6 second class engineer's; and the local certificates, one master's, 1 first mate's, 4 second mate's, 2 first class engineer's, 4 second class engineer's, 23 engine-drivers', and 1 first class engineer's, and 2 second class engineer's, for inland service. There were seven candidates for certificates as commanders of inland vessels, of whom six were successful. Five vessels were registered under the Merchant Shipping Act of 1854; and the registry of 16 was cancelled. One vessel only was registered under the Indian Act, X of 1841. A and B certificates, under the Native Passengers Act, VIII of 1876, were issued by the Port Officer during the year; while the surveys were carried out by the Port Commissioners' Engineer-Surveyor. This arrangement appears open to improvement, and the Lieutenant-Governor is now considering whether it would not be more convenient to place the granting of the certificates, as well as the surveys, in the hands of the Port Commissioners. The matter will be separately dealt with.

9. Lieutenant Stiffe's management of his department during the year was entirely satisfactory.

By order of the Lieutenant-Governor of Bengal,

A. P. MACDONNELL,

*Offg. Secretary to the Govt. of Bengal.*

**RESOLUTION ON THE REPORT ON THE CALCUTTA MEDICAL INSTITUTIONS FOR 1883.**

MUNICIPAL DEPARTMENT—MEDICAL.

*Calcutta, the 2nd August 1883.*

RESOLUTION.

**READ—**

The Report on the Calcutta Medical Institutions for 1882.

**Read also—**

The Report for 1881, and the Resolution recorded upon it.

The year 1882 was marked by a large increase of cholera in the town of Calcutta. The previous year had shewn a considerably larger number of deaths than 1880, and this increase was more than maintained during the year under review. The following statement shews the mortality from the most important diseases in each year since 1873:—

YEARS.	Cholera.	Diarrhoea and dysentery.	Fever.	Small-pox.	Other causes.	Total.	Ratio per 1,000 of population, census 1881.
1873	1,105	1,351	4,632	33	3,235	10,356	23·8
1874	1,245	1,358	4,461	120	4,343	11,527	26·6
1875	1,674	1,579	5,328	720	4,785	14,086	32·5
1876	1,851	1,884	4,361	71	4,817	12,964	29·9
1877	1,418	1,683	5,151	67	5,385	13,704	31·6
1878	1,338	2,010	6,086	1,495	5,467	16,396	37·8
1879	1,186	1,516	4,796	722	4,774	13,044	30·1
1880	805	1,267	3,797	114	5,698	11,681	26·9
1881	1,693	1,491	3,765	183	5,948	13,036	30
Mean number	1,341	1,548	4,727	354	4,742	12,714	29·3
1882	2,240	1,454	3,618	17	5,848	13,127	30·4
1883, first quarter	560	487	921	38	1,423	3,434	31·7
1873-82, first quarter	440	430	1,107	145	1,203	3,330	30·8

The figures for cholera shew that the mortality from this cause steadily increased from 1873, the first year of the series, to 1876. From that year the wave of disease began to recede, and the number of deaths continued to fall till it reached a minimum of 805 in 1880. During 1881 there was a large and sudden rise to 1,693, and this number has further increased during 1882 to 2,240, which is considerably the highest recorded during the past decade. There was, on the other hand, a remarkable decrease in the number of deaths from small-pox, and a slight, though sensible, diminution of fevers, diarrhoea, and dysentery. The total death-rate of the town from all causes was 30·4 per mille against 30 in 1881 and 29·3, the average of the previous 10 years. After allowance made for the inevitable disturbing elements, these figures are reflected with tolerable accuracy in the hospital returns. The following statement shews the number of deaths from the principal diseases in each of the Calcutta hospitals during the year, together with the number of cases treated:—

	Cholera.		Diarrhoea and dysentery.		Fever.		Small-pox.		Other causes.		Total.	
	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Medical College Hospital	182	77	330	63	541	41	.....	.....	3,894	420	4,947	601
General ditto	62	34	375	19	659	14	.....	.....	2,199	81	3,295	148
Mayo ditto	279	143	298	32	377	42	.....	.....	1,251	162	2,125	369
Campbell ditto	186	134	1,141	685	1,281	239	25	3	3,036	444	5,669	1,405
Police ditto	18	7	460	7	1,069	5	3	.....	948	14	2,438	33
Howrah ditto	132	73	379	158	239	25	.....	.....	804	64	1,604	320
Total	859	468	2,923	864	4,156	366	28	3	12,112	1,175	20,078	2,676

The number of cholera cases treated during the year rose from 589, with 304 deaths in 1881, to 859 cases, with 468 deaths during the year under review, the death-rate per mille rising at the same time from 516 to 544. The fluctuations in the mortality from fever in the town and in the hospitals were slight. The record of the town is, for reasons that have been stated on previous

occasions, fallacious, and no comparison can be instituted. Generally described, the year was unhealthy, and the mortality from all causes was above the average.

2. The following table shews the number of patients treated in each of the Calcutta hospitals during the year:—

MEDICAL INSTITUTIONS.	1882.				1881.			
	Total treated.			Died per mille of treated.	Total treated.			Died per mille of treated.
	In-door.	Out-door.	Total.		In-door.	Out-door.	Total.	
Medical College Hospital ...	5,448	39,329	44,777	123·5	5,381	59,085	64,466	129·89
General Hospital ...	5,295	... 3,295	8,590	44·91	2,863	... 2,863	2,863	47·85
Mayo Hospital and Dispensaries ...	2,125	1,82,163	1,84,288	173·04	2,125	1,83,354	1,85,479	153·87
Campbell Hospital ...	5,669	.....	5,669	247·83	6,074	.....	6,074	237·4
Municipal Police Hospital ...	2,438	.....	2,438	13·53	2,681	.....	2,681	13·05
Total Calcutta Hospitals ...	18,975	2,31,492	2,40,467	188·89*	19,124	2,42,459	2,61,563	138·31
Howrah General Hospital ...	1,604	11,012	12,616	169·5	1,640	12,511	14,151	192·07
<b>GRAND TOTAL</b> ...	<b>20,579</b>	<b>3,32,504</b>	<b>2,53,083</b>	<b>143·73</b>	<b>20,764</b>	<b>2,54,956</b>	<b>2,75,714</b>	<b>142·68</b>

\* Reckoned on the cases treated, exclusive of those of the Eye Infirmary.

For the second year in succession there was a falling off in the number of in-patients, the number being 20,579 against 20,764 in 1881, and 21,548 in 1880. The decrease was confined to the Campbell, Police, and Howrah hospitals, in the first-named of which it was most considerable. This is the more remarkable, because in the previous year a large part of the building was for some months closed for repairs, and the accommodation was thus much reduced. The Superintendent and the Surgeon-General ascribe the reduction in the number of admissions to a diminution in the prevalence of fever and dysentery, and an increase in severity among such cases as did occur. No figures are given of the average detention in hospital of patients suffering from these diseases, but a decided increase is observable in the fatality from the first-named. In 1881 there were in the Campbell Hospital 1,548 cases of fever with 250 deaths, giving a death-rate per mille of 168·5. In 1882 there were 1,281 cases with 239 deaths, and the death-rate rose to 186·5. There was no sensible change in the fatality from diarrhoea and dysentery combined, the rates per thousand in the two years being 512·9 and 512·8 respectively. The Surgeon-General remarks that in this hospital, of late years, mean daily numbers have borne a larger proportion than they formerly bore to numbers admitted, and that this circumstance points in the same direction. The Lieutenant-Governor observes, however, that this proportion was less in the past year than in 1881, the figures being 1:15·2 and 1:17·3 respectively. There is scarcely sufficient evidence, so far as appears from the report, to shew that the decrease in the numbers admitted during 1882 is attributable to greater severity of disease. The falling off is not very considerable in itself.

3. There was a large decrease in the number of out-door patients treated in 1882, the numbers falling from 2,54,950 to 2,32,504, or by 22,446. The decrease was most considerable at the Medical College Hospital, where it amounted to 19,756. It appears, however, that this fall is for the most part only apparent. "An erroneous method of entering cases as new, which were not new, was corrected in 1881. The correction reduced the figure of 1882 by upwards of 15,000. Further, up to September 1881 there had been an objectionable practice of treating in private rooms as out-patients persons who had no right to hospital treatment. This was stopped, but not until it had added 4,198 cases to the records of 1881." It is stated that the total number of new cases, properly so considered, amongst the out-patients of 1882, was 31,537. The following table shews the daily average number of patients under treatment in 1882:—

	1881.		1882.	
	In-door.	Out-door.	In-door.	Out-door.
Medical College	276·7	385·4	282·3	295·4
General Hospital	136·4	.....	151·0	.....
Mayo Hospital	97·3	1,349·4	82·7	1,214·7
Campbell Hospital	372·3	.....	350·6	.....
Police Hospital	98·7	.....	83·3	.....
Howrah General Hospital ...	63·2	110·4	65·7	96·2

The three hospitals which treat out-door patients—the Medical College, Mayo, and Howrah Hospitals—all shew a decrease in the average daily attendance, which indicates sickness of less severity among out-patients generally during 1882. This is somewhat remarkable, as being at variance with the mortality record of the in-patients treated at the hospitals, and also with the death returns of the town at large.

4. The following statement shews the mortality in each of the Calcutta hospitals during the last eight years :—

YEARS.	All diseases except cases treated in Eye Infirmary.			Cholera.			Death-rate, excluding cholera.	Number of deaths registered by the municipality.	Rate per mille of population.
	Treated.	Died.	Died per mille.	Treated.	Died.	Died per mille.			
1875	22,062	3,641	165	728	371	509	153	14,046	32'7
1876	21,987	3,064	145	695	339	536	132	12,904	30'1
1877	23,977	3,172	132	545	284	521	123	13,764	31'9
1878	27,908	4,518	161	579	323	557	153	16,396	38'1
1879	22,197	3,602	162	634	351	583	150	13,044	30'3
1880	21,032	2,906	138	356	183	514	131	11,681	27'1
1881	20,156	2,876	142	589	304	516	131	13,030	30'0
1882	20,078	2,836	143	859	468	544	125	13,177	30'4

The death-rate, excluding cholera, was remarkably low, being only 125 per 1,000, against 131 in each of the two previous years. Even if deaths from cholera are included, the rate was only 1 per cent. higher than that of 1881. As already pointed out, the death-rate of the town, as distinguished from that of the hospitals, was high, though the rate of increase above the figure of 1881 was less. The following table shews the true death-rate among natives, when deaths from cholera and moribund cases are excluded :—

	Campbell Hospital.	Medical College Hospital.	Howrah Hospital.	Mayo Hospital.	Police Hospital.	TOTAL.
True native deaths, excluding cholera	1,269	409	227	226	26	2,151
Moribund persons	191	120	54	38	3	406
Difference	1,078	289	173	188	23	1,751
True death-rate per mille, excluding cholera and moribunds	204'32	120'87	223'8	103'98	9'51	138'26

This shews that, except in the Mayo Hospital, where there seems to have been a considerable and unexplained accession of fatal disease, the true death-rate was in every case slightly below that of the previous year.

5. The Surgeon-General makes the following remarks regarding the prevalence of particular diseases during the year :—

The town was exceptionally free from small-pox in 1882, only 17 deaths appearing on the municipal register. As 28 cases were treated in hospital with only three deaths, the disease must have been mild as well as scarce. If it were fatal in the same ratio in town, the recorded deaths would represent 158 cases, shewing that less than one-fifth of the cases appeared in hospital. The proportion was probably larger than this, as it may be presumed that fatality was greater outside the hospitals. The quantity of fever treated in hospital was less by 693 cases than in 1881. In all the hospitals, except the Police, fever was much more fatal in 1882 among natives than in the previous year, and less so among Europeans in all but Howrah. Cholera increased, and its death-rate was higher than in 1881. There were 589 cases treated in 1881 and 859 in 1882. Dysentery fell both in quantity and severity. Diarrhoea shewed an increase in quantity and in fatality. The distribution of these affections in the several hospitals shews that the figures largely represent final stages of general exhaustion rather than distinct diseases.

6. In the Report for last year, and the Resolution recorded upon it, the Listerian method of treatment, and the alleged prevalence of hospitalism in the Medical College Hospital, were treated at some length. It was then stated that "the evidence hitherto available affords no means of determining how far the successful results obtained in the different hospitals are attributable to the strict observance of Lister's system, how far to the use of simple antiseptics and to the general improvement in cleanliness and care which has resulted since attention was directed to the subject, and how far to independent circumstances." So far as the abstract value of Listerism is concerned, there is nothing of importance to add to the above. The Surgeon-General is, however,

of opinion that the events of the past year have finally set at rest the controversy as to the fitness of the Medical College Hospital for the treatment of surgical disease. The surgeons of both wards continued to use the systems employed by them in the previous year. Dr. MacLeod, in the first ward, carried out the Listerian method in its entirety; while Dr. Raye confined this method to severe cases, using less elaborate dressings in his less important cases.

7. In the two wards together, there were, apart from ophthalmic cases, 279 important surgical operations, which were followed by death in 29 instances. In 1881 there had been 252 operations with 54 deaths. There was thus a very marked improvement in the degree of mortality after operative surgery in all cases taken together, and this is stated to have been accompanied by increased strictness in the application of antiseptic dressings. On the other hand, it does not appear that there was any improvement on the results of the previous year in cases of exceptional severity which were employed as "tests." In 1882 there were 16 operations for excision of bones and joints, with 3 deaths. In 1881 there had been 11 such operations with one death. In 1882 there were 24 major amputations with 8 deaths. In 1881 there had been 17 with 6 deaths. The Surgeon-General points out that in both years Listerism was most strictly used in this class of cases, and that the fluctuations are probably due to other causes. At the same time a greater degree of strictness in the application of antiseptic treatment (as distinguished from strict Listerism) in ordinary cases has been followed by a large reduction of mortality. A comparison of the relative results obtained during 1881 and 1882, respectively, in the General, Mayo, Campbell, and Howrah Hospitals, where no change of system was introduced, shews some improvement in the first and last named, and some slight retrogression in the other two. The Surgeon-General sums up the discussion with the following remarks, in which the Lieutenant-Governor generally concurs:—"It must be admitted, I think, that the year was, from some unknown cause, favourable to surgical work; but it cannot be said that the other hospitals have given evidence which refutes the opinion of the College Surgeons on the greatly reduced mortality after operation in their wards. If, on the other hand, this opinion be adopted, it will not explain increased fatality in test cases in 1882, nor the fact that, in these cases, results as good, if not better, are obtained elsewhere with less elaborate and costly appliances. The antiseptic method is apparently the best that has yet been invented, but the measure of its superiority has yet to be taken, and the advantage of strict Listerism seems doubtful in hospital practice; while, as a system to be taught exclusively to pupils, it is not desirable."

8. The following table shews the number of cases of enteric and remittent fever treated at each of the hospitals during the year:—

	Enteric fever.												Remittent fever.											
	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.				
Medical College Hospital ...	9	5	6	6	1	..	2	..	..	..	86	58	125	95	134	152	164	180	196	150				
Presidency General Hospital ...	6	11	12	17	18	9	11	6	11	12	22	10	48	27	39	38	34	49	32	40				
Howrah Hospital ...	..	..	..	..	*	2	4	2	3	3	88	146	172	210	359	393	238	107	77	73				
Mayo Hospital ...	2	1	5	6	..	..	..	..	1	..	13	22	35	36	174	234	139	208	231	143				
Campbell Hospital ...	28	2	..	..	11	..	..	..	..	..	212	495	460	438	432	460	333	354	309	301				
Police Hospital ...	8	11	..	14	11	2	1	..	..	..	..	1	..	..	..	11	29	28	58	41				
Total ...	53	30	23	43	34	13	18	8	15	15	421	731	841	806	1,128	1,284	918	926	893	748				

The 15 cases of typhoid all occurred among Europeans, and were confined to the General and Howrah Hospitals. The decrease of remittent fever was shared by all the institutions except the Presidency General Hospital.

9. In the Ophthalmic Hospital 501 in-door and 7,792 out-door patients were treated, against 608 and 6,606, respectively, in the previous year. The number of operations performed was 275 against 352. In 200 cases the patient was discharged cured, and in 28 relieved. Thirty-three cases remained under treatment at the end of the year.

10. The Eden Hospital for women was opened in July 1882, and the public took full advantage of the excellent accommodation it affords. The daily average of house-patients, which, during the first half of the year, when

the old obstetric ward was in use, had been 30·9, immediately rose to 43·3. The establishment of the new hospital was reorganized, and has now been placed on a satisfactory footing. Pupil nurses are still employed, but they are no longer relied on to do the main part of the work. For this a sufficient staff of trained nurses from the Canning Home has now been permanently entertained. The Surgeon General considers it satisfactory "that the Eden Hospital, with imperfect nursing and other disadvantages inseparable from a commencement, should have already given evidence of having met a public want." The total number of cases treated by the obstetric physician during the year was 1,323, of whom 802 were European and 521 native patients. The number of deaths was 75 against 76 in the previous year, out of a total of 1,008 patients.

11. In the Medical College Hospital the number of in-door patients treated was 4,947, exclusive of ophthalmic cases, against 4,773 in the previous year. The number of deaths was 611, or at the rate of 123 per 1,000, against 129 in 1881. This rate is the lowest on record since 1875, except that of 1877. Of the patients treated, 2,287 were Christians and 2,660 natives, the death-rates of the two races being 59 and 178 per 1,000 respectively. The death-rates from fevers of Christians and natives were 37·4 and 139·5 respectively; from dysentery and diarrhoea, 127·1 and 226·4; from cholera, 363·6 and 436·2; and from chest-affections, 55·1 and 314·6.

12. In the Presidency General Hospital the total number of patients treated rose from 2,863 in 1881 to 3,295. Of these, 1,735 were sailors, and, of the remainder, 444 were paying and 1,116 non-paying patients. The number of paying patients was considerably in excess of that of the previous year, when it had been only 239. The number of deaths was 148 against 137 in 1881, and the rate of mortality per 1,000 treated was 44 against 47, 32, and 45 in the three preceding years. There were 62 cases of cholera with 34 deaths, and 195 cases of dysentery with 8 deaths. Typhoid fever, remittent fever, and phthisis accounted for 6, 4, and 9 deaths respectively.

Quadrennial repairs were carried out during the year to the eastern building; but it is reported that the western block is generally in a bad state of repair, and that the floors in particular require renewing. On a recent personal inspection of the Hospital, the Lieutenant-Governor noticed the bad condition of the flooring. The attention of the Public Works Department will be drawn to this. Much, too, may be done for the improved appearance, if not for the sanitation of the place, by clearance of the trees and vegetation to the south of the spacious grounds in which the Hospital stands. The nursing arrangements are under the supervision of the Clewer Sisterhood, and are said to have been carried out with energy and efficiency. Not a single complaint was received during the year concerning the dieting of the patients, and Dr. Birch writes that, "comparing our diet-scale with that of London and Australian hospitals, I find no scale so liberal as ours." Since the close of the year a scheme has been submitted to Government for the supply of filtered water to the wards direct from the mains. The Lieutenant-Governor would be glad to see this carried out without delay, and a reference has been made to the Calcutta Corporation on the subject.

13. The number of admissions into the Campbell Hospital during 1882 was 5,290 against 5,675 in 1881, being a falling off of 385 patients. The Surgeon-General's explanation of this, which appears to be in some degree conjectural, has been alluded to in paragraph 2 above. The largest number of admissions was, as usual, on account of malarious fevers, being 1,247 against 1,491 in 1881. Next in order were dysentery, diarrhoea, ulcers, and splenic affections. Cholera cases rose from 78 in 1880 and 132 in 1881, to 186 in the year under review. Small-pox and phthisis, on the other hand, shewed a large falling off. The total number of deaths was 1,405 against 1,442 in 1881, and the death-rate per mille was 247 against 237. The increase is said to be due to the larger number of cholera cases treated during the year, and of moribund persons admitted. The true death-rate of the hospital per 1,000, excluding cholera and moribund cases, was 204 against 206 and 204 in 1881 and 1880. Certain minor improvements were effected in the interior arrangements of the hospital, and others have been projected. The plans and estimates should be submitted to Government without delay for consideration in the Public Works Department.

14. The number of admissions into the Police Hospital indicates some improvement in the health of the force during the year. They amounted to 2,394 against 2,589 in 1881 and 2,625 in 1880, out of a total strength of 2,806. The daily average number of sick was 83 against 98 and 107 in the two previous years. Malarious fevers shewed a decrease from 1,061 to 860, and there was also a slight decrease under dysentery, diarrhoea, and remittent fever. There were three cases of modified small-pox, and 18 of cholera, of which 7 proved fatal. The total number of deaths was 33 against 35, 30, and 36 in the three preceding years, and the death-rate per mille was 13·4, as compared with 13·5 in 1881.

15. The aggregate numbers of patients treated in the Mayo Hospital and dispensaries were as follows:—

		1882.	1881.
In-patients	... { Total treated ...	2,125	2,125
	... { Daily average ...	82	97
Out-patients	... { Total treated ...	182,163	183,354
	... { Daily average	1,214	1,349

In-patients are treated only at the Mayo and Chandney Hospitals, where they numbered 1,885 and 240 respectively. In both cases there was a decrease in the daily average compared with the previous year, the numbers being 77 and 5·3 in 1882, against 91 and 5·8 in 1881. This falling off has not been explained. In the Mayo Hospital there were 133 deaths from cholera out of 261 persons treated, or at the rate of 50·9 per cent. In the previous year the corresponding figures had been 83, 160, and 51·8 respectively. In the Chandney Dispensary there were only 18 cases of cholera against 36 in 1882. These figures do not correspond with the known increased prevalence of cholera in the town and suburbs, which caused more admissions and mortality in all the Calcutta hospitals in 1882 than in the preceding year. The general rates of mortality in the two institutions were 18·5 and 8·3 per cent. respectively.

In the Mayo Hospital the number of out-patients fell from 48,059 in 1881 to 43,012 in the year under review, the average daily attendance being 310 against 386. The explanation offered by the Superintendent is that the system of giving more than one day's supply of medicines was more extensively carried out during the year. The Surgeon-General, however, correctly points out that this will not explain the decrease in total numbers, and that it does not go far towards explaining reduced average, as the average number of times that each patient attended was less by only a small fraction than the corresponding number of 1881. In the Chandney Dispensary the total number of out-patients rose from 68,592 to 70,525, but the daily average attendance is said to have been only 405 against 460. No explanation is offered of this discrepancy. Dr. Simpson makes the following remarks concerning the recorded figures of the practice of the Mayo Hospital and associated dispensaries:—

The composition of these large figures shews that further enquiry is necessary before they can be accepted. The proportional numbers of the several kinds of cases entered are very unlike those which obtain elsewhere. The scarcity of cholera cases in the past year has been noted; of fever an enormous quantity is recorded, viz. 13,325 cases among outpatients; but of spleen diseases, allied to fever as its result, only 1,227 cases. At the Mayo Hospital the corresponding figures are 4,993 and 2,454, at Sookea's Street 3,057 and 1,479, at Chitpore 2,638 and 549, at the Medical College 6,065 and 1,187. In a total number of 70,525 patients, there are at the Chandney Hospital no less than 7,126 cases of "worms" returned, or 10·1 per cent. of the total. At the Mayo Hospital there were in all 43,012 out-patients with 404 cases of worms or 0·9 per cent. At Sookea's Street we have 15,688 patients with 571 cases of worms, at Chitpore 21,135 with 133, at the Medical College 31,537 with 361 cases, and at Howrah 11,012 cases include only 80 cases of worms. In the provincial dispensaries the proportion of cases of worms to total number was 2·8 per cent.

These facts are certainly remarkable, and appear to throw some doubt on the accuracy of the returns. The Surgeon-General's remarks will be brought to the notice of the Governors of the Mayo Hospital, who will be requested to institute an enquiry into the method of recording patients.

16. In the Howrah General Hospital the total number of patients treated was 12,616 against 14,151 in the previous year. Of these, 3,970 were Europeans and 8,646 natives. In-patients numbered 1,604, of whom 669

were Europeans and 935 natives. The out-door patients numbered 11,012, viz.—

			1882.	1881.
Europeans	...	...	3,301	3,761
Natives	...	...	7,711	8,750
Total	...	...	<hr/> 11,012	<hr/> 12,511

The large decrease in the number of native out-patients is attributed to the greater healthiness of the season; 351 European seamen were treated in hospital against 276 in 1881. There were 32 deaths among European and East-Indian patients, and 288 of natives, giving death-rates per mille of 47·83 and 308·02 respectively. The death-rates in 1881 were 44·77 and 293·81. There were 132 cases of cholera with 73 deaths, against 69 and 36 in the previous year. The mortality from fevers and dysentery was greater, and that from diarrhoea less than in 1881. It is stated that a very large proportion of deaths which occurred among native in-patients was due to the hopelessly advanced stage in which municipal paupers were sent to the hospital. This will be brought to the notice of the Municipal Commissioners of Howrah.

17. The invested capital of the Calcutta hospitals, which on the 31st December 1881 amounted to Rs 5,34,700, was increased by Rs. 9,000 during the year, of which Rs. 5,000 belongs to the Mayo and the balance to the Howrah Hospital. The total expenditure from all sources amounted to Rs. 3,69,304, not including investments, against Rs. 4,03,250 in 1881. There was a reduction under every head of expenditure except miscellaneous charges, which increased from Rs. 35,914 to Rs. 43,989. The chief reduction was under the head of buildings and repairs, the expenditure on which fell from Rs. 74,309 to Rs 43,174. This was principally due to the heavy expenditure incurred in 1881 on the renovation and repairs of the Campbell Hospital. The net cost to Government of all the hospitals was Rs. 2,32,224, against Rs. 2,68,388 in the previous year. The total income from local sources of all kinds was Rs. 1,49,655 against Rs. 1,39,739.

18. The income of the Medical College Hospital from local sources was Rs. 11,997, of which Rs. 8,846 represents receipts from paying patients. The corresponding receipts in 1881 were Rs. 4,351. The increase in receipts from this source is highly satisfactory, as indicating that the hospital is beginning to be accepted as supplying a long felt public want. The net cost to Government, after deduction of the amount remitted to the treasury, was Rs. 80,170 against Rs. 83,714 in 1881. The total expenditure of the hospital rose slightly from Rs. 89,184 in 1881 to Rs. 89,631, the increase being under the heads of diet and establishment. There was a reduction in the cost of Europe medicines from Rs. 9,204 to Rs. 8,268, including both the College and the Associated Choonee Lal Seal's dispensary, and in bazar medicines from Rs. 1,227 to Rs. 816. This, however, is partly due to the fact that in 1881 expenditure which should have been charged to miscellaneous was debited against this head in the dispensary. The total cost of diet and stimulants was Rs. 26,293 against Rs. 25,787 in 1881, the increase being mainly due to the larger number of patients treated. The average cost of diets was 6 annas for Europeans and 2 annas 7 pies for natives, against 6 annas and 2 annas 6 pies respectively.

19. At the Presidency General Hospital the total receipts from all sources rose from Rs. 39,235 to Rs. 41,661. The amount received from paying patients was Rs. 13,089 against Rs. 7,914 in the previous year, being an increase of Rs. 5,175. This large and satisfactory increase is ascribed by the Superintendent to improvements in the comfort and accommodation of paying patients. The receipts from the Port Fund on account of sailors, however, shew a decrease of Rs. 2,787. The Superintendent has again represented that the fee charged for treatment of sailors is insufficient to cover the expenditure incurred in the hospital. The Lieutenant-Governor's orders on this question were notified in the Resolution recorded last year. No increase in the rate of fee can at present be sanctioned.

The total expenditure on the hospital was Rs. 1,00,900 against Rs. 1,05,894 in 1881. The outlay on the sick was Rs. 90,778. There was a reduction in the cost of establishment from Rs. 53,854 to Rs. 48,678, and an

increase under bazar medicines, diet, and miscellaneous. The cost of diet and stimulants rose from Rs. 24,163 to Rs. 26,423, the increase being due to the larger number of patients treated in 1882. The average cost of each diet was 7 annas 7 pies against 7 annas 9 pies in 1881. The expenditure on buildings amounted to Rs. 10,122, including a sum of Rs. 6,317 spent on quadrennial repairs to the hospital.

20. The total receipts of the Campbell Hospital amounted to Rs. 31,443, including the donation of Rs. 30,000 from the Calcutta Municipality. The total expenditure was Rs. 78,498, against Rs. 1,02,773 in the previous year. In 1881, however, there was exceptionally heavy expenditure on buildings. The amount spent on the ordinary requirements of the hospital in 1882 was Rs. 58,404 against Rs. 53,299 in 1881. The cost of establishment was Rs. 24,697, shewing an increase of Rs. 684, which is not fully explained. The outlay on diet and stimulants amounted to Rs. 17,530 against Rs. 20,281. This fall is due partly to the reduction in the number of patients treated, and partly to the greater cheapness of the year under review, the cost of each diet having been reduced from 2 annas 4 pies to 2 annas 2 pies. The expenditure under the head of "Miscellaneous" was Rs. 12,245 against Rs. 4,224. This large increase, amounting to Rs. 8,021, is not sufficiently explained.

21. The total expenditure at the Police Hospital was Rs. 16,124, being almost exactly the same as in the previous year. One-sixth of this amount was borne by Government, the remainder being contributed by the Calcutta and Suburban Municipalities. The cost of dieting fell from Rs. 5,435 in 1881 to Rs. 4,449 in the year under review, and the average cost of each diet was 2 annas 4 pies against 2 annas 6 pies. None of the other items of expenditure call for remark.

22. The invested funds of the Mayo Hospital were increased by Rs. 5,000 during the year. In the Resolution of last year, it was stated that, in view of the large sums invested from annual income, the question of revising the Government grants would be considered in the Financial Department. A report on this subject has since been received from the Governors of the Mayo Hospital, and is now under the consideration of Government. The matter will be separately dealt with. The total expenditure of the hospital and its associated dispensaries amounted to Rs. 58,281, including the outlay on buildings, against Rs. 59,413 in 1881. Of this amount Government contributed Rs. 37,366, or 64 per cent. of the whole. The expenditure on establishment was Rs. 31,455, or Rs. 250 in excess of that of 1881. There was a small reduction under the heads of bazar medicines and diet, and a large one under that of Europe medicines and miscellaneous. The Lieutenant-Governor regrets that he is again compelled to notice the high cost of dieting patients in this hospital, which amounted to 3 annas 2 pies, the same as in 1881. Not only is this rate much higher than in any other of the Calcutta Hospitals, but it shews no reduction on the figure of the previous year, although prices were decidedly lower in 1882 than in 1881. Attention was drawn to this point in the Resolution recorded last year.

23. The income of the Howrah Hospital from private sources amounted to Rs. 22,885, of which Rs. 6,904 was paid by the Port Fund for diet of sick seamen, Rs. 2,400 contributed by the municipality, Rs. 1,446 represented interest on investments, and Rs. 12,129 payments by the East Indian Railway Company, British India Steam Navigation Company and others. It is not encouraging to notice that native subscriptions to this important charity amounted to Rs. 6 only. Government contributed Rs. 5,168 in cash, and part of the salary of the Assistant Surgeon. The total expenditure amounted to Rs. 23,634 against Rs. 28,032 in 1881. Deducting building charges, it appears that the actual amount spent on the sick was Rs. 22,723. The average cost of each diet among Europeans was 9 annas against 9 annas and 2 pies, and among natives it was 1 anna 10 pies against 1 anna and 7 pies in 1882. The percentage of total cost borne by Government was 21·8.

24. The Surgeon-General bears grateful testimony to the value of the reforms effected in the work of the nurses in the Medical College and General Hospitals by the ladies of the Clewer Sisterhood. Early in 1882, under arrangements made by the Committee of the Nurses' Institution, the control of the nursing arrangements passed into the hands of these ladies; and from the

date of their arrival, improvement has made rapid progress. Not only have the administrative arrangements of the hospitals benefitted by their trained skill and experience in the practical details of nursing, but the patients have testified in no uncertain manner to the advantages resulting from their constant presence and patient attention. The Lieutenant-Governor's cordial thanks are due to these ladies for the unflagging care and devotion which they have brought to the performance of their self-imposed task.

By order of the Lieutenant-Governor of Bengal,

COLMAN MACAULAY,

*Secretary to the Government of Bengal.*

---

AGRICULTURAL PRIZES.

---

The following despatch is published for general information.

COLMAN MACAULAY,  
*Secretary to the Govt. of Bengal.*

No. 45, dated India Office, London, the 28th June 1883.

From—The RIGHT HON'BLE THE EARL OF KIMBERLEY, Her Majesty's Secretary of State for India,

To—His Excellency the Most Hon'ble the Governor-General of India in Council.

REFERRING to the letter of your Excellency's Government, No. 14 of the 26th December 1881, I have to acquaint you that in the recent examination for the prizes and certificates offered by the Royal Agricultural Society, the highest honours were gained by Babu Grish Chandra Basu, who holds one of the Agricultural scholarships created by the Government of Bengal.

2. At a meeting of the Society lately held under the presidency of the Duke of Richmond and Gordon, it was announced that twenty gentlemen entered their names for the examination, six of whom obtained first class certificates and the life membership of the Society. Four of these gentlemen qualified for prizes, and the highest prize of £25 was awarded to Babu Grish Chandra Basu.

## Rainfall, Weather, and State and Prospects of the Crops.

*Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different Districts of Bengal, as reported to Government during the week ending the 4th August 1883.*

No.	District, and date of return.	Rainfall at Sudder Station in inches.	Character of the weather, state and prospects of the crops, and state of health at date.
<b>BENGAL.</b>			
<i>Western Districts.</i>			
BURDWAN DIVN.	1 Burdwan, Aug 4 '83	6.63	Weather—cool, cloudy. Owing to heavy rainfall transplanting of paddy temporarily retarded, but the planted crop has received no injury.
	Culna	8.38	
	Cuttwa	7.5	
	Raneeunge	5.5	
	2 Bankoora, " 4 "	4.50	Weather—rainy and cloudy. Transplanting of late rice continues to be attended to, but about to be brought to a close. Some more rain is wanted in the interior of the Bishenpore sub-division. Public health good.
	Bishenpore	2.64	
	Maliara	3.39	
	Khatra	4.80	
PRESIDENCY DIVN.	3 Beerbohom, " 4 "	10.62	Weather—cloudy. Heavy rain. Transplanting of <i>amun</i> crop far advanced. Partial damage from floods in some places. Prospects of crops otherwise good. General health of district satisfactory.
	Rampore Hant	5.85	
	4 Midnapore, " 4 "	6.99	Weather—cloudy and rainy. Excessive rainfall impeding agricultural operations. Public health fair.
	5 Hooghly, " 4 "	6.25	Weather—hot and rainy. Prospects of crops good. Public health good.
	Howrah " 6 "	6.56	Weather—cloudy; heavy rain at times; perfectly fair at others. Transplanting of rice in progress. Heavy rain is said to have submerged the <i>amun</i> in some lands in thana Bagnan. <i>Aus</i> crop, sugarcane, and jute looking well.
	Oolooberia	8.07	
	<i>Central Districts.</i>		
	6 24-Pergunnahs, " 6 '83	5.04	Weather—seasonable. Prospects of early crops good. Transplanting of <i>amun</i> is going on briskly all over the district. Public health good.
RAJSHAHIE AND COOCH BEHAR DIVN.	7 Nuddea, " 4 "	2.60	Weather—rainy, cloudy, and cool. Prospects of standing crops fair. Manufacture of indigo continues. Fever much the same as before.
	Kooshtea	1.12	
	Meherpore	0.73	
	Choondanga	2.07	
	Ranaghat	6.78	
	8 Khooina, " 4 "	3.08	Frequent rain. Prospects favourable. Transplanting of rice still going on. Public health good.
	9 Jessor, " 4 "	3.07	Weather—hot and rainy. Harvesting of <i>aus</i> crop has commenced. Prospects fair. <i>Amun</i> is also doing well. General health good except in Bongong sub-division, where fever is reported to prevail in some places.
	Jhenida	1.21	
DACC DIVN.	Magura	4.66	
	Narail	4.94	
	Bongong	5.35	
	10 Moshedabad, " 4 "	2.14	Weather—hot and cloudy with occasional showers. Transplanting operations are still in progress. <i>Aus</i> and other crops are doing well. Public health generally good.
	11 Daspore	.....	Report not received.
	12 Rambahye, Aug. 4 "	1.49	Moderate rain. Weather cloudier, and east and south-east wind steadier. Crop doing well on the whole; but more rain is wanted soon for the <i>amun</i> , or the crop will be a short one.
	Nattore	1.95	
	Nowgong	1.08	
COOCH BEHAR	13 Rungpore, " 4 "	1.06	Weather—hot and cloudy with occasional slight fall of rain accompanied by east wind. Harvesting of <i>aus</i> and transplanting of <i>amun</i> going on. Prospects of other crops good. Cholera still prevalent in Kaligunge station.
	Nilphamari	3.19	
	Kurigram	11.25	
	Gaibanda	2.69	
	14 Bogra	2.17	Moderate rain daily except on 29th, so that the weather has been comparatively cool. Transplanting of <i>amun</i> crop going on well. Jute and <i>aus</i> are being cut. General health good.
	15 Pabna	0.56	Weather—cool with light showers. Crops progressing favourably. Rivers rising.
	16 Darjeeling, " 4 "	6.55	Weather—seasonable. Transplanting of native crops progressing favourably. Indian-corn and <i>koormi</i> outturn to date below last year's. Cholera abated a little. Four cases of small-pox reported from Nakessurbari.
	17 Jangporee, " 4 "	7.71	Weather—seasonable. <i>Bhadoi</i> paddy and jute backward. Public health still bad. Cholera still lingers. Mortality in jail has been very great this season.
<i>Cooch Behar</i>			Report not received.
<i>Eastern Districts.</i>			
DACC DIVN.	18 Dacca, Aug. 4 '83	4.70	Weather—seasonable. <i>Aus</i> paddy and jute are being cut. Sowing of <i>shail</i> and <i>roachia</i> paddy going on. Prospects of crops good. In Nawabgunge prospects of <i>aus</i> in the low lands not so favourable.
	Manickgunge	1.52	
	Munshigunge	5.37	
	Narsingunge	6.00	
	19 Farreapore, " 4 "	5.81	Weather—seasonable. State and prospects of winter rice and sugarcane very fair. <i>Aus</i> and jute being cut, with fair outturn. Public health fair.
	Goalundo	3.76	
	Madaripore	3.83	
	20 Backergunge, " 2 "	3.69	Weather—sultry, with occasional showers. A good outturn of <i>aus</i> crop is expected. Cultivation of <i>amun</i> going on. Public health good. Cattle-disease still continues in some parts of the Ptuaikhali sub-division.
MURSHEDABAD DIVN.	21 Mymensingh, " 3 "	1.19	Weather—cloudy sky; daily showers. Air cooler than last week. Rivers have risen considerably. Prospects improved owing to rain which has facilitated transplanting. Harvesting of jute has begun. Outturn of this, as also of <i>aus</i> , not expected to be large. Outturn of the <i>boro</i> crop was about 10 annas. General health fair.
	Jamalpore	0.52	
	Kishoregunge	3.65	
	Attea	1.16	
	Petrokona	2.72	

No.	District, and date of return.	Rainfall at Sudder Station in inches.	Character of the weather, state and prospects of the crops, and - state of health at date.
BENGAL—concl.			
Eastern Districts.—concl.			
CHITTAGONG DIVN.	22 Chittagong, Aug. 7 '83 23 Noakholly, " 2 " 24 Tipperah, Brahmanbaria Chandpore 25 Chittagong Hill July 31 " Tracts. Hill Tipperah Aug. 1 "	8.04 5.80 6.84 1.31 4.95 2.45 1.14	Weather—seasonable. Prospects of crops fair. Transplanting of <i>amun</i> continues. Prices steady. Cholera and small-pox still reported. Weather—cloudy and rainy; it rains very frequently. Minimum temperature 79° and maximum 84°. <i>Aus</i> paddy is being reaped generally. Transplanting of <i>amun</i> paddy continues. Weather—seasonable. State and prospects of crops favourable. Public health generally good. Continued drizzling rain throughout the week. <i>Jum</i> paddy doing well. Cotton crop will be very short. Transplanting of <i>aus</i> paddy progressing. Sugarcane doing well. Weather—last portion of the week rainy. More rain wanted. <i>Amun</i> paddy still being transplanted. <i>Satya</i> paddy, <i>til</i> and sugarcane doing well. Public health good.
BEHAR.			
PATNA DIVN.	26 Patna, Barh Behar 27 Gya, " 4 " 28 Shahabad, Buxar Sassaram Bhabooah 29 Durbhunga, " 4 " 30 Mozufferpore, Hajeeapore Seetamurhee 31 Sarun, Sewan Gopalgunge 32 Chumparun	3.06 7.61 11.75 7.72 5.46 3.34 4.88 4.81 2.62 4.07 6.01 3.70 4.69 3.24 7.87 .....	Weather—hot. Constant rain has affected the <i>bhadoi</i> crops to some extent. Rice seedlings have also suffered on this account. Cholera prevailing in Barh, Behar and Sudder. Weather—cool and cloudy with frequent showers. Transplanting of rice crop is being pushed forward. All crops on the ground are looking well. Cholera less prevalent, but cattle-pox reported from several villages. Weather—seasonable. Rainfall frequent and in plentiful torrents. Transplanting of rice commenced. Cholera in Bhabooah abating. Weather—cloudy, showery and cool. All prospects good. Prices stationary. Health good. Weather—seasonable. Copious rainfall of the week has brought forward the <i>bhadoi</i> crop, and has facilitated transplanting of the <i>aghani</i> crop. Cholera cases are frequent in the interior of the district. Weather—cloudy with frequent showers. Sufficient rain general throughout district. Prospects of <i>bhadoi</i> crops excellent. A spell of fair weather will do immense good. Transplanting of paddy in low lands going on. Manufacture of indigo in progress. A few cases of cholera and small-pox reported from Sewan and Gopalgunge sub-divisions, otherwise public health good. Report not received.
BHAGULPUR DIVN.	33 Monghyr Aug. 4 '83 Beguseraij Jamui 34 Bhagulpore, " 4 " 35 Purneah, Kissengunge Arrareah 36 Maldab, " 4 " 37 Sonthal Perghs., Deoghar Rajmehal Jauntara Pakour Gedda	4.76 4.35 9.28 4.05 2.33 3.33 1.60 1.81 4.20 6.37 1.69 3.06 2.45 4.1	Weather—cool and rainy. Heavy rain reported to have done some injury to <i>bhadoi</i> crops, but it is favourable for the transplanting of rice. Public health generally good. Weather—rainy throughout district. Prospects of autumn crops very good. Transplanting of <i>aghani</i> paddy going on. Weather—normal. <i>Bhadoi</i> crops good. More rain wanted for transplanting rice. Weather—cloudy, with light showers of rain. Paddy and other standing crop are doing well. Common rice selling at from 16 to 18 seers per rupee. General health good. Weather—rainy. The rain of the past week will suffice for almost all the transplanting that remains to be done. The Indian-corn may suffer a little, but the loss will be fully made up by the improved prospects of the rice harvest.
ORISSA.			
ORISSA DIVN.	38 Cuttack 39 Pooree, Khoorda 40 Balasore,	..... 4.46 2.25 3. " 3 "	Report not received. Weather—cloudy, with moderate rain. Transplanting and weeding going on. In some places <i>biali</i> is in ear. Miscellaneous crops doing well. Prices of food-grains stationary. Public health good. Weather—seasonable. Transplanting of paddy going on vigorously. Standing crops doing well. Public health good.
CHOTA NAGPORE.			
South-West Frontier Agency.			
41 Hazaribagh, Aug. 3 '83 42 Lohardugga, " 4 " 43 Singbham, " 3 " 44 Manbham, Govindpore	4.96 6.23 12.46 8.86 3.51	Weather—cloudy and rainy. Sufficient rain throughout the district. Transplanting operations commenced. Prospects of crops favourable. General health good. Weather—rainy. A break would do good to standing crops. Transplanting of paddy progressing actively. Cholera still prevalent in Palamow. Prices stiffer in Itanchi and Silli. Very heavy rain during the week. All crops doing well. General health fair, good. Weather—rainy and close. Prospects of all crops excellent. Public health generally good. Outbreak of small-pox at Topchanchi abating.	

Published for general information.

CALCUTTA, STATISTICAL DEPT.,  
The 7th August 1883.COLMAN MACAULAY,  
Secy. to the Govt. of Bengal.

The following Statement shows the Quantities of the Principal Staples of Traffic imported into Calcutta from the Interior during the month of May 1883.

## IMPORTS INTO CALCUTTA.

Whence imported.	FOOD-GRAINS.							FIBROUS PRODUCTS.		OIL-SEEDS.		Tea, Indian.	Cotton, raw.	Silk, raw.	SUGAR.				
	RICE AND PADDY.			Wheat.	Gram and pulses.	Other food- grains.	Total.	Jute, raw.	Gunny- bags.	Linseed.	Mustard- seed.				Mds.	Mds.			
	Rice.	Paddy.	Total (in rice).																
BENGAL.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	No.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.		
Calcutta	40,722	10,755	47,444	2,094	6,141	1,049	56,728	709	350	2,257	.....	273	22	905	.....	119	905		
Seriboom	822	.....	822	.....	550	23	1,395	.....	.....	931	.....	14	378	.....	378	.....	119		
Singapore	1,83,824	52,470	2,16,618	.....	4,055	.....	2,20,673	100	420	3,704	291	37	669	.....	1,018	.....	1,018		
Sorly	30,067	2,944	31,882	18,135	8,859	1,900	60,782	32,536	642,600	3,574	5,427	1,074	132	3,085	12,921	.....	12,921		
Perkunnahs	2,07,212	33,143	2,27,920	888	1,464	.....	2,30,278	37,878	867,030	918	.....	2,186	.....	31,697	11,638	.....	11,638		
Idia	2,646	8	2,651	39,340	51,994	1,423	95,478	33,905	4,176	15,863	2,167	.....	384	405	3,958	66,431	.....	66,431	
Sunes	6,130	5,550	9,474	.....	900	.....	10,374	2,490	60	10,828	1,251	.....	44	.....	12,900	.....	12,900		
Asori	7,138	3,275	9,185	867	24,633	.....	34,715	2,490	60	10,828	1,251	.....	44	16	16,754	.....	16,754		
Korshedabad	.....	.....	.....	6,900	5,570	41	12,511	828	2,500	534	314	.....	324	.....	.....	.....	.....		
Magalore	11,649	.....	11,649	.....	.....	.....	11,649	.....	9,300	.....	.....	1	.....	52	.....	.....	.....		
Gashayee	.....	.....	.....	227	3,258	.....	3,485	4,911	270	2,981	1,182	.....	62	.....	.....	.....	.....		
Maglore	.....	.....	.....	.....	.....	.....	.....	32,882	246,060	.....	.....	.....	.....	.....	.....	.....	.....		
Asi	16,767	.....	16,767	658	.....	.....	16,767	2,480	139	1,203	.....	.....	.....	.....	.....	.....	.....		
Asi	.....	.....	.....	.....	.....	.....	.....	653	2,02,264	313,410	2,833	792	33	.....	.....	.....	.....		
Asi	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7,482	.....	.....	.....	.....	.....	.....		
Asi	14,404	.....	14,404	.....	.....	.....	246	14,650	2,49,529	90	1,802	53	8,053	.....	.....	.....	.....		
Asi	5,500	.....	5,500	11,945	16,914	.....	.....	34,359	1,17,608	870	19,258	4,374	517	10	1,158	.....	1,158		
Asi	2,04,734	.....	2,04,734	.....	.....	.....	2,04,734	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Asi	906	.....	906	.....	.....	.....	906	5,211	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Asi	400	.....	400	.....	.....	.....	400	.....	.....	.....	.....	.....	300	.....	.....	.....	.....		
Asi	3,936	.....	3,936	.....	.....	.....	3,936	.....	.....	.....	.....	157	273	.....	.....	.....	.....		
Asi	10,857	.....	10,857	.....	.....	.....	10,857	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Total of Bengal	7,47,714	1,07,905	8,15,155	81,054	1,24,368	4,758	10,25,335	7,34,229	2,286,036	67,591	15,918	11,808	12,977	1,902	33,696	1,23,052	.....		
BUKHAR.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,743	453	.....	.....		
Asi	27	.....	27	1,62,356	48,306	7,292	1,57,981	.....	.....	1,52,666	23,104	.....	12	.....	.....	.....	.....		
Asi	.....	.....	.....	24,573	.....	.....	24,573	.....	.....	27,070	2,463	.....	2,975	463	.....	.....	.....		
Asi	.....	.....	.....	1,58,123	2,590	.....	1,40,715	.....	.....	15,534	.....	.....	1,033	511	.....	.....	.....		
Asi	.....	.....	.....	.....	8,997	.....	8,997	.....	.....	3,584	.....	.....	416	.....	.....	.....	416		
Asi	4	.....	4	5,459	1,101	394	6,958	.....	.....	28,283	5,971	.....	.....	.....	.....	.....	.....		
Asi	.....	.....	.....	12	.....	.....	12	.....	.....	.....	2,854	.....	.....	.....	.....	.....	.....		
Asi	.....	.....	.....	.....	.....	.....	.....	.....	.....	27,397	5,928	.....	.....	.....	.....	.....	.....		
Asi	15	.....	15	24,831	35,420	.....	69,286	.....	.....	21,824	10,644	.....	.....	.....	.....	.....	.....		
Asi	24	.....	24	31,099	2,834	2,309	36,256	.....	.....	350	1,550	.....	.....	.....	.....	.....	.....		
Asi	.....	.....	.....	57	.....	57	955	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Asi	.....	.....	.....	2,329	2,940	.....	5,269	282	.....	5,711	16,169	3	31	49	.....	.....	.....		
Asi	.....	.....	.....	23,101	11,213	.....	34,314	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Total of Behar	70	.....	70	3,51,883	1,04,451	18,992	4,75,396	1,237	.....	2,82,427	73,683	.....	3	43	10,751	1,914	.....		
ORISSA.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Asi	7,580	.....	7,580	290	.....	.....	7,870	397	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Asi	1,09,208	4,040	1,11,733	825	.....	.....	1,12,558	1,556	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Total of Orissa	1,16,788	4,040	1,19,313	1,115	.....	.....	1,20,428	1,953	.....	.....	.....	.....	.....	.....	.....	.....	.....		
CHOTA NAGPORE.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Asi	.....	.....	.....	2,666	.....	.....	2,666	.....	.....	1,870	812	598	.....	.....	112	.....	.....		
Asi	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Asi	8,64,572	1,11,945	9,34,538	4,34,052	2,31,485	23,750	16,23,825	7,37,419	2,286,036	3,51,888	90,443	12,204	12,980	2,035	49,447	1,25,078	.....	.....	
Asi	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Asi	.....	.....	.....	16,48,137	23,965	804	16,74,906	.....	.....	1,12,971	3,28,623	303	44,592	383	431	.....	.....		
Asi	.....	.....	.....	33,358	3,663	.....	37,021	.....	.....	1,59,703	410	1,112	.....	.....	.....	.....	.....		
Asi	.....	.....	.....	270	.....	270	.....	.....	50,503	.....	1,971	.....	.....	.....	.....	.....	.....		
Asi	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11,056	.....	1,225	.....	.....	.....	.....		
Asi	13,664	.....	13,664	1,550	.....	15,214	.....	150	.....	.....	1,233	.....	1,233	.....	.....	.....	.....		
Asi	2,732	.....	2,732	1,990	4,722	5	1,000	.....	.....	.....	3,103	.....	18	261	.....	.....	.....		
Asi	5	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Total of 1882	8,80,973	1,11,945	9,56,939	21,15,547	2,64,923	24,554	33,55,963	7,38,237	2,287,270	5,15,723	5,86,648	17,359	72,926	2,263	51,290	1,25,503	.....		
Imports in May, 1882	9,46,355	1,62,078	10,40,404	10,01,121	3,20,718	15,102	23,77,345	3,94,083	1,661,579	5,08,797	4,34,582	17,609	61,144	2,578	50,532	92,453	.....	.....	

- One maund of paddy is equivalent to 25 seers of rice.

† Exclusive of bags obtained by local manufacture.

*The Sea-borne Trade of Calcutta in these Staples during the month of May 1883, was as follows :—*

The following Statement shows the several Routes followed by the Trade in the Principal Staples of Traffic imported into Calcutta during the month of May 1883.

## IMPORTS INTO CALCUTTA.

SPECIFICATION OF ROUTES.	FOOD-GRAINS.					FIBROUS PRODUCTS.		OILSEEDS.		Tea, Indian.	Cotton, raw.	Silk, raw.	SUGAR.	
	Rice.	Paddy.	Wheat.	Gram and pulses.	Other food- grains.	Jute, raw.	Gunny- bags.	Linseed.	Mustard- seed.				Refined.	Un- refined.
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	No.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
By country boats ...	5,66,750	1,00,221	57,430	96,693	1,182	1,49,370	1,407,436	34,193	10,844	2,750	801	6,012	37,3	
" river steamers ...	.....	.....	.....	.....	.....	2,65,801	.....	361	6,808	661	7	.....	.....	
" rail { East Indian ...	36,230	.....	20,36,225	1,35,312	22,434	.....	4,49,816	5,62,006	1,382	45,721	767	11,134	2,2	
" Eastern Bengal ...	29,100	.....	19,705	23,340	938	2,90,893	772,920	30,287	6,990	12,921	8,197	467	68,8	
" road ...	1,12,022	9,184	1,362	1,138	.....	30,754	105,770	1,068	.....	.....	1,147	.....	32,684	
" sea ...	1,35,971	2,540	823	3,540	.....	1,409	1,150	.....	.....	157	14,450	251	2,410	
Grand Total of Imports { 1883 ...	8,80,973	1,11,945	21,15,547	2,64,923	24,554	7,38,227	2,287,276	5,15,723	5,86,648	17,359	72,926	2,293	52,200	1,35,3
in May ... { 1882 ...	9,45,355	1,52,078	10,01,121	3,20,718	15,102	5,94,683	1,551,579	5,02,797	4,34,582	17,609	61,144	2,578	86,532	9,6

The following Statement shows the Values, Quantities, and Numbers of the Principal Staples of Traffic exported inland from Calcutta during the month of May 1883.

## EXPORTS FROM CALCUTTA.

Whither exported.	Cotton piece-goods.		Cotton twist.		Salt.	Gunny- bags.	Whither exported.	Cotton piece-goods.		Cotton twist.		Salt.	Gunny- bags.
	European.	Indian.	European.	Indian.				Euro- pean.	Indian.	European.	Indian.		
BENGAL.	Rs.	Rs.	Mds.	Mds.	Mds.	No.	CHOTA NAGPORE.	Rs.	Rs.	Mds.	Mds.	Mds.	No.
Burdwan	3,48,725	1,440	458	1,578	34,216	43,670	Hazaribagh	97,950	.....	98	7,690	20,0	
Beerhoom	1,88,100	990	201	400	14,927	9,310	Manbhoom	96,750	.....	49	1,477	10,366	
Midnapore	83,467	50	720	.....	661	15,345	Total of Chota Nagpore ...	1,94,700	.....	49	1,575	18,056	
Hoogly	1,12,483	3,005	613	39	249	25,580	Grand total of supplies into the provinces under the Lieutenant-Governor of Bengal.	99,63,280	83,026	13,859	6,089	4,54,742	
24-Pergunnahs	2,31,216	32,083	880	52	8,904	18,934	99,63,280	83,026	13,859	6,089	4,54,742	1,22,1	
Nuddea	4,50,671	.....	1,024	.....	21,324	21,680	British Burmah	1,98,918	1,464	805	2,759	77,6	
Kulna	2,300	.....	.....	.....	4,185	.....	Other pieces	13,270	3,893	48	2,619	4,828	
Jessore	1,02,973	.....	43	.....	6,378	570	.....	.....	.....	.....	.....	.....	
Moorshedabad	1,69,438	6,840	.....	87	8,020	5,660	Assam	3,33,458	.....	201	.....	8,004	0
Dinapore	1,25,120	.....	438	.....	8,550	1,230	North-Western Provinces and Oudh	30,43,725	26,730	2,437	306	20,615	1,66,1
Rajshahiye	2,11,520	.....	381	.....	13,900	870	Punjab	11,26,200	2,610	1,455	73	.....	43,5
Rungpore	4,09,321	.....	215	.....	20,850	36	Central Provinces	97,575	270	631	.....	.....	262,7
Bogra	1,17,040	.....	182	.....	10,800	3,690	Rajpootana States	63,100	.....	194	.....	.....	41,9
Purna	3,20,180	.....	282	.....	51,825	390	Bombay	9,150	.....	65	.....	2,319,2	
Darjeeling	45,840	.....	15	.....	250	.....	Madras	40,725	75	786	478	27,7	
Julpigoree	2,04,600	.....	627	.....	12,050	.....	Pondicherry	.....	.....	89	.....	56,6	
Dacca	8,34,270	11,240	2,909	10	17,850	10,470	British Burmah	1,98,918	1,464	805	2,759	77,6	
Furreedpore	3,14,580	.....	649	.....	19,497	12,000	Other pieces	13,270	3,893	48	2,619	4,828	
Backergunge	56,389	.....	.....	.....	7,095	.....	.....	.....	.....	.....	.....	.....	
Mymensing	922	.....	16	.....	6,900	.....	Grand total of { 1883 ...	1,58,00,401	1,17,978	20,630	12,327	5,13,361	
Tipperah	.....	.....	.....	.....	350	.....	Exports in May ... { 1882 ...	1,17,27,551	64,569	19,770	8,359	7,17,990	
Chittagong	1,11,123	18	267	.....	425	300	1,17,27,551	64,569	19,770	8,359	7,17,990	9,031	
Naokhally	6,850	.....	.....	.....	1,290	.....	.....	.....	.....	.....	.....	.....	
Total of Bengal ...	44,40,608	69,266	9,040	2,136	2,70,406	169,819	.....	.....	.....	.....	.....	.....	
BEHAR.	.....	.....	.....	.....	.....	.....	The Sea-borne Trade of Calcutta in these Staples during the month of May 1883 was as follows:-	.....	.....	.....	.....	.....	
Gautam	14,36,025	6,630	142	91	61,074	307,285	Imported into Calcutta -	Rs.*	Rs.	Mds.	Mds.	Mds.	No.
Gya	3,20,409	360	22	122	16,815	36,155	From Foreign Ports -	90,77,052	.....	1,6387	.....	5,03,784	.....
Sinhabad	4,81,125	5	134	26,911	196,105	2,707	United Kingdom	90,77,052	.....	1,6387	.....	5,03,784	.....
Mozafferpore	1,09,500	.....	44	407	15,421	39,620	Other Foreign ports	28,684	.....	432	.....	1,96,374	1
Durbhunka	5,82,390	5,40	.....	.....	2,587	2,520	Total of Foreign trade ...	91,66,636	.....	14,919	.....	6,70,158	1
Champaran	3,13,875	1,980	24	230	15,221	103,523	From Indian Ports -	.....	.....	.....	.....	.....	.....
Monmyar	4,72,725	360	21	329	17,711	90,169	Bombay	12,921	84,460	.....	9,123	11,144	
Bangalore	3,73,875	540	157	313	2,325	210	Madras	11,087	390	.....	.....	.....	
Purnea	4,36,425	630	.....	.....	4,650	1,100	British Burmah	4,960	.....	600	.....	1,998	
Malda	7,14,375	.....	116	505	30,858	56,420	Other Indian ports	.....	1	.....	.....	.....	
Total of Behar ...	52,40,625	23,760	531	2,136	1,96,280	937,735	Total of Interport trade ...	26,848	85,360	1	9,123	13,142	
ORISSA.	.....	.....	.....	.....	2,000	.....	Grand Total of { 1883 ...	91,33,904	85,360	14,920	9,123	6,83,300	
Cuttack	88,447	.....	4,239	212	71,600	.....	Imports in May ... { 1882 ...	63,09,717	59,630	13,317	6,845	6,13,957	
Baisore	.....	.....	4,239	212	73,600	.....	.....	.....	.....	.....	.....	.....	
Total of Orissa ...	88,447	.....	4,239	212	73,600	.....	.....	.....	.....	.....	.....	.....	

The following Statement shows the several Routes followed by the Trade in the Principal Staples of Traffic exported from Calcutta during the month of May 1883.

SPECIFICATION OF ROUTES.	COTTON PIECE-GOODS.				COTTON TWIST.				Salt.	Gunny-bags.
	European.	Indian.	European.	Indian.	European.	Indian.	European.	Indian.		
By country boats ...	1,55,510	11,636	809	.....	Mds.	Mds.	Mds.	Mds.	91,947	51,
" river steamers ...	5,30,840	.....	1,900	.....	.....	.....	.....	.....	6,250	.....
" rail { East Indian ...	1,13,75,775	62,640	6,024	6,197	.....	.....	.....	.....	2,79,415	3,45,
" Eastern Bengal ...	29,65,520	14,340	4,248	10	.....	.....	.....	.....	1,29,513	1,
" road ...	3,16,073	24,102	1,467	62	.....	.....	.....	.....	6,236	1,
" sea ...	4,53,683	5,860	6,232	6,068	.....	.....	.....	.....	.....	8,322
Grand Total										

STATEMENT SHOWING THE STOCK OF RICE IN AND AROUND CALCUTTA.

NAME OF MARKET.	Stock in hand as compiled on—											
	1st week of August 1883.	1st week of Sept. 1882.	1st week of Oct. 1882.	1st week of Nov. 1882.	1st week of Dec. 1882.	1st week of Jan. 1883.	1st week of Feb. 1883.	1st week of March 1883.	1st week of April 1883.	1st week of May 1883.	1st week of June 1883.	1st week of July 1883.
Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
Batinchhatta ...	3,94,000	4,17,500	4,21,000	2,65,000	2,59,600	3,85,300	5,50,500	7,40,000	8,35,000	6,69,000	6,52,000	5,67,500
Olladanga ...	71,700	72,700	63,300	65,300	47,600	57,100	48,210	89,900	1,06,400	1,07,500	1,22,300	1,22,300
Onipore, Golabaree, Coomertooly, Hakkholi, and Culpy Ghaut.	7,03,800	7,24,700	7,05,500	6,45,600	6,35,200	6,62,050	6,12,400	7,22,200	9,14,200	7,92,900	9,50,100	9,59,400
Pathuriashatta, Posts, and Jorabagan.	21,500	22,500	28,600	10,500	16,500	21,700	13,200	19,500	18,200	8,400	15,500	15,400
Tollygunge, Chittiah, Kidderpore, and Monshingra.	1,33,500	1,55,200	1,36,200	1,06,500	1,04,800	1,17,500	1,09,000	1,11,600	1,20,400	1,37,200	1,51,100	1,12,200
21 Minor Basars (estimated) ...	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000
Other retail shops, 3,129 in number (estimated).	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000
Hoidyhattry, Nowrangunge, Bhuddresaur, and Chander-nagore.	21,125	15,875	20,531	17,181	9,750	7,934	6,012	6,975	13,625	10,887	12,956	12,569
Total ...	18,41,925	19,03,475	18,64,531	16,07,681	16,14,450	17,41,944	18,19,312	21,89,175	24,95,835	22,03,525	23,91,887	22,79,856
On Railway premises on both sides of the river.												
By Port Commissioners' ratars.	2,750 (on 5th August 82.)	5,222 (on 2nd Sept. 82.)	740 (on 5th Oct. 82.)	6,402 (on 4th Nov. 82.)	5,672 (on 3rd Dec. 82.)	780 (on 3rd Jan. 83.)	3,976 (on 3rd Feb. 83.)	3,736 (on 3rd March 83.)	2,922 (on 3rd April 83.)	1,626 (on 4th June 83.)	2,320 (on 4th July 83.)	4,568 (on 4th August 83.)
On boats unloaded ...	77,377 (3rd to 6th August 82.)	56,963 (1st to 3rd Sept. 1882.)	35,222 (2nd to 4th Oct. 82.)	35,329 (1st to 3rd Nov. 82.)	35,600 (1st to 3rd Dec. 82.)	21,372 (1st to 3rd Feb. 83.)	21,372 (1st to 3rd March 83.)	18,114 (1st to 3rd April 83.)	38,295 (2nd to 4th May 83.)	24,192 (1st to 3rd June 83.)	40,764 (1st to 3rd July 83.)	17,389 (2nd to 4th August 83.)
By Canal returns	54,181 (3rd to 6th August 82.)	60,750 (1st to 3rd Sept. 1882.)	39,692 (2nd to 4th Oct. 82.)	24,085 (1st to 3rd Nov. 82.)	18,847 (1st to 3rd Dec. 82.)	1,22,775 (1st to 3rd Jan. 83.)	1,15,534 (1st to 3rd Feb. 83.)	82,019 (1st to 3rd March 83.)	75,293 (2nd to 4th April 83.)	46,122 (1st to 3rd May 83.)	49,297 (1st to 3rd June 83.)	31,465 (2nd to 4th July 83.)
Grand Total of Stocks ...	19,76,273	20,26,450	19,40,215	16,54,867	16,74,808	19,06,901	19,56,918	23,35,184	26,14,689	22,53,907	24,62,227	23,72,037
Probable stock available for exportation by sea,	9½ lakhs.	9½ lakhs.	6 lakhs.	6½ lakhs.	8½ lakhs.	9 lakhs.	12½ lakhs.	15½ lakhs.	12½ lakhs.	14 lakhs.	12½ lakhs.	11 lakhs.

STATISTICAL DEPARTMENT,  
The 6th August 1883.

COLMAN MACAULAY,  
Secty. to the Govt. of Bengal.

## PRICES CURRENT of Food-grains, Firewood, and Salt in the

Number.	DISTRICTS.	RETAIL SALE:-QUANTITIES PER RUPEE BY																								
		WHEAT.				BARLEY.				RICE, BEST SORT				RICE, COMMON.				BULRUSH MILLET-CUMBOO, BAJRA.				GREAT MILLET-CHOLUM, JOWAR.				
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Present return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	
<b>BENGAL.</b>																										
<i>Western Districts.</i>																										
1	Burdwan	... A B	16 8 14 12 14 12	16 0 13 8 13 8	14 0 16 0 16 0	20 0 15 0 19 0	30 0 15 0 19 0	30 0 17 0 19 0	17 4 17 4 19 0	17 4 22 8 25 0	24 0 25 0 29 0	22 12 22 8 25 0	22 8 26 8 29 0	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...			
2	Bankura	... C	15 0	15 12	13 4	... ...	...	...	16 8	16 8	18 12	21 0	21 0	24 0	...	...	...	...	...	...	...	...	...	...	...	...
3	Beerhoom	... D	14 0	14 0	14 0	17 0	17 0	17 0	18 0	18 0	21 0	22 0	22 0	24 8	...	...	...	...	...	...	...	...	...	...	...	...
4	Midnapore	... E	14 0	14 0	14 0	17 0	17 0	17 0	18 0	18 0	21 0	22 0	22 0	24 8	...	...	...	...	...	...	...	...	...	...	...	...
5	Hooghly	... Howrah	13 0 13 4	13 8 13 4	18 0 13 4	... ...	... ...	... ...	9 0 13 8	10 0 13 8	10 0 16 0	15 0 17 8	18 8 17 8	19 0 19 8	...	...	...	...	...	...	...	...	...	...	...	...
<i>Central Districts.</i>																										
6	Calcutta	... F	14 9 13 5	14 4 11 12	13 5 16 0	18 13 17 8	19 6 20 0	91 5 8 0	10 12 8 0	10 12 9 0	10 0 14 0	16 0 16 0	16 0 16 0	20 0 20 0	20 0 20 0	20 0 20 0	20 0 20 0	20 0 20 0	20 0 20 0	20 0 20 0	20 0 20 0	20 0 20 0	20 0 20 0	20 0 20 0	20 0 20 0	
7	24-Pergunnabs	... G	13 5	13 5	11 12	16 0	17 8	20 0	8 0	8 0	9 0	14 0	16 0	16 0	...	...	...	...	...	...	...	...	...	...	...	20 0
8	Nuddea	... H	14 8	14 8	14 8	... ...	26 0	26 0	15 4	15 4	16 13	17 4	17 4	20 0	...	...	...	...	...	...	...	...	...	...	...	...
9	Khoolna	... I	...	...	...	...	...	...	16 0	16 0	16 0	22 0	24 0	22 0	...	...	...	...	...	...	...	...	...	...	...	...
10	Jessore	... J	13 4	14 8	14 0	...	...	...	16 0	16 0	17 0	21 4	22 12	22 0	...	...	...	...	...	...	...	...	...	...	...	...
11	Moorshedabad	... K	15 0	15 0	15 0	...	...	...	15 0	15 0	16 0	20 0	19 0	24 0	...	...	...	...	...	...	...	...	...	...	...	...
12	Dinagepore	... L	16 0	13 14	11 0	17 8	...	17 0	16 12	16 0	16 0	19 0	18 13	19 3	...	...	...	...	...	...	...	...	...	...	...	...
13	Rajshahye	... M	16 8	17 4	13 8	{ 13 8 15 0	{ 30 0	30 0	45 0	{ 12 0 { 15 0	{ 15 0 { 16 8	{ 15 0 { 18 0	{ 17 4 { 18 0	{ 19 4 { 18 0	{ 19 4 { 18 0	{ 19 4 { 18 0	{ 19 4 { 18 0	{ 19 4 { 18 0	{ 19 4 { 18 0	{ 19 4 { 18 0	{ 19 4 { 18 0	{ 19 4 { 18 0	{ 19 4 { 18 0			
14	Rungpore	... N	13 5	13 5	16 0	...	...	...	13 5	13 5	16 0	20 0	20 0	19 0	...	...	...	...	...	...	...	...	...	...	...	...
15	Bogra	... O	15 0	15 12	16 8	...	...	...	12 0	12 12	15 12	21 0	21 0	26 4	...	...	...	...	...	...	...	...	...	...	...	...
16	Pabna	... P	18 12	18 12	17 0	...	...	...	8 0	8 0	10 0	19 8	19 8	26 4	...	...	...	...	...	...	...	...	...	...	...	...
17	Darjeeling	... Q	8 0	8 0	8 0	8 0	8 0	8 0	4 0	4 0	5 0	12 0	8 0	13 0	...	...	...	...	...	...	...	...	...	...	...	
18	Julpigoree	... R	10 0	10 0	9 0	20 0	20 0	20 0	12 8	12 8	14 0	17 0	16 0	18 0	...	...	...	...	...	...	...	...	...	...	...	
19	Dacca	... S	12 8	12 4	13 5	23 0	19 0	40 0	16 8	15 12	29 0	22 0	19 0	32 0	19 8	...	...	...	...	...	...	...	...	...	...	...
20	Furreedpore	... T	20 0	20 0	22 0	30 0	30 0	35 0	16 0	16 0	22 0	18 0	18 0	24 0	...	...	...	...	...	...	...	...	...	...	...	...
21	Backergunge	... U	...	...	...	...	...	...	19 0	19 0	20 0	21 0	21 0	24 0	...	...	...	...	...	...	...	...	...	...	...	...
22	Mymensingh	... V	11 0	11 0	10 8	...	...	...	13 5	15 8	22 0	19 0	19 8	30 0	...	...	...	...	...	...	...	...	...	...	...	...

A In the sub-divisions retail prices of salt are as follow:—Cuima 13½ seers, Cutwa 11½ seers, and Raneegunge 13½ seers.

B Retail prices of salt at Raipore 11 seers, at Onda 15 seers, at S-namukhi 12 seers, and at Bishenpore, Indas, and Kotulpore 13 seers.

C In the interior retail price of salt range from 10 to 13 seers.

D In Chhatti retail price of salt 14½ seers.

E In the sub-divisions retail prices of salt are as follow:—Serampore 13 seers and Jehanabad 13½ seers.

F In the sub-divisions retail prices of salt are as follow:—Baraset and Bussirat 13 seers, Diamond Harbour 10½ seers, Barrackpore 12½ seers, and Dum-Dum 12 seers.

G In the sub-divisions retail prices of salt are as follow:—Kooshtea 12½ seers, Meherpore 11 seers, Chooadanga 15 seers, and Ranaghat 12 seers.

H In Satkhira and Nagirhat retail price of salt 11 seers.

I In the sub-divisions retail prices of salt are as follow:—Jhenida, Magura and Narail 12 seers, and Bongong 13 seers.

J In the sub-divisions retail prices of salt are as follow:—Lalbagh 11 seers, Jungypore 10 seers, and Kaudi 11½ seers.

*Districts of Bengal for the Fortnight ending 31st July 1883.*

THE SEER OF 80 TOLAHS.												WHOLESALE PRICES PER MAUND OF 40 SEERS.												DISTRICTS.		
LESSER MILLET— RAGI OR MURWA AND CHHENA.				MAIZE OR INDIAN- CORN.				GRAM.				FIREWOOD.				SALT.				SALT.				BENGAL. <i>Western Districts.</i>		
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	DISTRICTS.	
S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	R. A.	R. A.	R. A.	R. A.	R. A.	R. A.	R. A.	R. A.	Burdwan.			
..	..	..	..	..	..	..	..	20 4	21 8	20 0	120 0	120 0	120 0	120 0	12 10	12 4	13 8	3-0-8	3-0-8	2 15						
..	..	..	..	30 0	32 0	32 0	17 12	17 12	18 0	280 0	280 0	240 0	240 0	12 0	12 0	12 0	12 0	3-3-6	3-3-6	3 3						
..	..	..	..	..	..	..	..	21 0	21 8	20 0	100 0	160 0	180 0	180 0	10 8	10 0	11 8	3-8-3	3-12-6	3 7						
..	..	..	..	..	..	..	..	16 0	14 0	17 0	155 0	155 0	160 0	160 0	12 0	12 8	13 8	2 14	2 14	2 13						
..	..	..	..	..	..	..	..	16 0	17 0	20 0	120 0	120 0	120 0	120 0	13 9	13 9	13 9	2 14	2 14	2 14						
..	..	..	..	..	..	..	..	16 4	16 4	19 8	80 0	80 0	80 0	80 0	13 8	13 0	13 0	2 14	3 0	3 0						
																									Howrah.	
S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	R. A.	R. A.	R. A.	R. A.	R. A.	R. A.	R. A.	R. A.				
..	..	..	..	..	..	..	..	21 5	26 10	..	17 12	18 13	21 5	90 0	90 0	90 0	14 0	14 0	14 9	2 12	2 12	2 10				
..	..	..	..	..	..	..	..	..	17 8	22 0	17 8	17 8	17 8	80 0	80 0	90 0	13 5	13 5	13 5	2 14	2 14	3 0				
..	..	..	..	..	..	..	..	..	20 0	20 0	22 15	..	..	..	..	11 10 $\frac{1}{4}$	11 10 $\frac{1}{4}$	11 10 $\frac{1}{4}$	3 0	3 0	3 0					
..	..	..	..	..	..	..	..	..	16 0	16 0	12 0	180 0	180 0	160 0	160 0	10 8	10 8	11 0	3 4	3 4	3 2					
..	..	..	..	..	..	..	..	..	18 0	19 12	16 0	120 0	120 0	120 0	120 0	11 0	11 0	12 8	3 2	3 2	3 2					
..	..	..	..	..	..	..	..	..	23 0	23 0	22 0	120 0	120 0	120 0	120 0	11 0	10 0	12 8	3 8	3 6	..					
..	..	..	..	..	..	..	..	..	19 0	17 7	20 0	160 0	160 0	180 0	180 0	11 8	11 6	12 8	3 7	3 7	..					
..	..	..	..	..	..	..	..	..	21 0	20 10	19 4 to 21 0	240 0	240 0	240 0	240 0	12 0	12 0	12 0	3-2-6	3-2-6	..					
..	..	..	..	..	..	..	..	..	17 3	17 3	15 0	110 0	110 0	130 0	130 0	11 14	11 14	11 8	3-5-3	3 5	3-5-3					
..	..	..	..	..	..	..	..	..	16 8	18 12	15 12	71 4	69 6	67 8	67 8	12 0	10 8	10 8	3 2	3 8	3 8					
..	..	..	..	..	..	..	..	..	18 4	18 6	20 0	200 0	200 0	200 0	200 0	12 0	12 0	12 0	3 4	3 4	3-3-6					
10 0	9 0	8 0	13 0	13 0	22 0	8 0	8 0	9 0	128 0	128 0	128 0	100 0	100 0	8 0	8 0	8 0	8 0	4 8	4 8	4 8	Darjeeling.					
..	..	..	..	..	..	..	..	16 0	16 0	16 0	128 0	128 0	128 0	128 0	11 8	11 0	11 0	3 6	3 6	3 4	Juliangore.					

*Eastern District.*

..	..	..	..	..	..	..	..	17 4	18 8	20 0	110 0	120 0	106 8	12 4	12 0	12 4	3 4	3 4	3 3	Dacca.	
..	..	..	..	..	..	..	..	16 0	16 0	12 0	120 0	120 0	120 0	120 0	11 8	11 8	11 0	3 7	3 7	2-13-0	Furreehpore.
..	..	..	..	..	..	..	..	18 0	18 0	18 0	120 0	120 0	100 0	100 0	13 0	13 0	10 9	2 11	2 11	3 11	Bassein.
..	..	..	..	..	..	..	..	15 8	15 8	16 0	..	..	..	..	12 4	12 8	12 8	3 4	..	..	Mymensingh.

K Retail price of salt at Raigunge 10 $\frac{1}{2}$  seers and Nitpore 12 seers.

L Retail price of salt at Nattore and Nowgong 12 seers.

M In the sub-divisions retail prices of salt are as follow :—Gaibanda 10 seers, and Nilphamari and Kurigram 12 seers.

N In Serajunge retail price of salt 13 $\frac{1}{2}$  seers.

O Retail price of salt at Kurisong and Silligoree 8 seers.

P In Alipore (at Fallacoita) retail price of salt 10 seers.

Q In the sub-divisions retail prices of salt are as follow :—Manickgunge 12 seers, Naraingunge 13 seers.

R In the sub-divisions retail prices of salt are as follow :—Goalundo 10 $\frac{1}{2}$  seers, Madaripore 12 seers, Bhanga 11 seers, and Gopalgunge 12 $\frac{1}{2}$  seers.S In the sub-divisions retail prices of salt are as follow :—Paukhali 9 $\frac{1}{2}$  seers, Perozapore 11 seers, and Bhola 9 seers.T In the sub-divisions retail prices of salt are as follow :—Kishoregunge 10 $\frac{1}{2}$  seers, Attea 12 seers, Jamalpore 11 seers, and Netrokona 12 $\frac{1}{2}$  seers.

## PRICES-CURRENT of Food-grains, Firewood, and Salt in the

Number.	DISTRICTS.	RETAIL SALE :—QUANTITIES PER RUPEE BY THE																				
		WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			BULRUSH MILLET—CUMBOO, BAJRA.			GREAT MILLET—CHOLUM, JOWAR.					
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.			
<b>Eastern Districts.—(Concluded.)</b>																						
		S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.			
22	Chittagong	U 10 0	12 0	9 0	...	...	...	14 0	13 0	16 0	21 0	20 0	25 0	...	...	...	...	...	...	...		
23	Noskholly	V ...	...	...	...	...	...	20 0	20 0	26 0	22 0	22 0	28 0	...	...	...	...	...	...	...		
24	Tipperah	W 11 6	11 6	11 8	...	...	...	18 12	17 0	22 8	23 8	22 12	28 0	...	...	...	...	...	...	...		
25	Chittagong Hill Tracts.	...	...	...	...	...	...	12 4	12 4	13 5	13 4	13 4	17 12	...	...	...	...	...	...	...		
	Hill Tipperah	10 0	10 0	11 0	...	...	...	16 0	17 0	22 0	20 0	22 0	29 0	...	...	...	...	...	...	...		
<b>BEHAR.</b>																						
26	Patna	X 21 0	17 8	18 8	29 12	33 0	34 0	14 6	14 0	12 0	16 0	18 0	22 0	...	...	...	...	...	...	...		
27	Gaya	Y 18 8	19 0	17 8	24 0	25 0	29 0	12 0	12 0	12 8	15 0	15 0	18 8	...	...	...	...	...	...	...		
28	Shahabad	Z 16 8 { 16 8 to 17 0 to 17 8 to 16 0 } 17 0	17 0	14 8	25 0	21 0	25 0	{ 11 0 to 11 8 to 11 8 19 0 } { 11 8 11 8 19 0 16 0 } 16 0	{ 1 0 to 1 0 to 1 0 17 0 } { 1 0 1 0 17 0 17 0 } 17 0	16 0	15 0	15 0	15 0	20 8	28 0	28 0	...	...	...	...	...	...
29	Durbhunga	Z1 18 0	18 0	14 0	...	30 0	32 8	13 0	12 0	14 8	16 0	16 0	17 0	...	...	...	...	...	...	...		
30	Mozafferpore	Z2 18 0	18 0	16 0	28 0	29 0	30 0	30 0	12 0	12 0	11 0	16 0	18 0	15 0	...	...	...	...	...	...		
31	Sarun	Z3 17 0	17 0	15 0	26 0	26 0	27 0	10 0	10 0	10 0	10 0	18 0	18 0	20 0	...	...	...	80 0	28 0	30 0		
32	Chumparun	Z4 19 0	19 0	18 0	32 0	34 0	35 0	13 0	13 0	12 0	17 0	17 0	19 0	0	...	...	...	...	...	...		
33	Monghyr	Z5 18 19	18 14	15 12	27 14	25 3	31 8	13 15	13 10	14 10	16 0	16 12	18 14	...	...	...	...	...	...	...		
34	Bhagulpore	Z6 16 6	16 6	14 8	24 0	27 12	30 4	15 2	15 2	17 11	17 10	17 10	21 7	...	...	...	...	...	...	...		
35	Purneah	Z7 18 0	20 0	14 0	...	...	...	15 0	15 0	20 0	17 0	18 0	22 0	...	...	...	...	...	...	...		
36	Maldah	Z8 16 8	17 0	16 0	...	...	...	14 8	16 0	15 0	17 0	19 0	20 0	...	...	...	...	...	...	...		
37	Sonthal Perghs.	Z11 14 0	14 0	18 0	...	...	...	16 0	16 0	18 0	22 0	22 0	23 0	...	...	...	...	...	...	...		
<b>ORISSA.</b>																						
38	Cuttack	Z9 13 2	14 7	13 2	...	...	...	13 2	13 2	15 12	21 0	21 0	27 9	...	...	...	...	...	...	...		
39	Pooree	Z10 13 0	13 2	10 0	...	...	...	21 0	20 0	20 0	23 10	23 10	24 0	...	...	...	...	...	...	...		
40	Balasore	Z11 14 0	14 0	16 0	...	...	...	16 0	16 0	26 0	28 0	28 0	32 0	...	...	...	...	...	...	...		
<b>CHOTA NAGPORE.</b>																						
<i>South-Western Frontier Agency.</i>																						
41	Hazareebagh	Z9 14 0	15 0	12 0	20 0	20 0	...	9 0	10 0	10 0	16 0	16 0	18 0	...	...	...	...	...	...	...		
42	Lohardogra	Z10 15 0	16 0	16 0	20 0	21 0	24 0	18 0	18 0	20 0	22 0	22 0	22 0	...	...	...	...	...	...	...		
43	Singbham	Z11 18 0	18 0	20 0	32 0	32 0	28 0	36 0	36 0	32 0	40 0	40 0	36 0	...	...	...	...	...	...	...		
44	Mansbham	Z11 13 0	13 0	13 0	...	...	...	17 0	17 0	18 0	25 0	27 0	30 0	...	...	...	...	...	...	...		

\* In the interior retail prices of common rice vary from 28½ to 30½ seers per rupee.

U Retail price of salt at Kumeriah 10 seers, and at Hathazaree and Cox's Bazar 8 seers.

V In the interior retail prices of salt range from 6 to 12½ seers.

W In the sub-divisions retail prices of salt are as follow:—Brahmanberia 12 seers and Chandpore 13 seers.

X In Nowda retail price of salt 10 seers.

Y In the sub-divisions retail prices of salt are as follow:—Buxar 11½ seers, Bhuboona 10½ seers.

Z In the sub-divisions retail prices of salt are as follow:—Madhubani 10 seers, and Ajapore 11½ seers.

Z1 In the interior retail prices of salt range from 10 to 12 seers.

Z2 In the sub-divisions retail prices of salt are as follow:—Sewan 12½ seers, and Gopalgunge 12 seers.

CALCUTTA,  
The 7th August 1883.

*Districts of Bengal for the Fortnight ending 31st July 1883.—(Concl.)*

Z3 In the interior retail prices of salt range from 10 to 12½ seers.

In the sub-divisions retail prices of salt are as follow :— Begusera 10 seers, and Jamui 11 seers.

Z5 In the sub-divisions retail pieces of salt are as follow:- Banks 11 seers, and Muddenpara and Soopole 10 seers.

Z6 In the sub-divisions retail prices of salt are as follow :—Kisengunge 8 seers, and Arrareah (at Raneegunge) 10 seers.  
Z7 In Khanda retail price of salt 12 seers.

Z7 Is Khoorda retail price of salt 13 seers.  
Z8 Retail price of salt at Bhadrak 10 seers.

**Zs** Retail price of salt at Burdwan 10 seers.  
**Zs** Retail price of salt at Khurruckdihs 11

Z10 Retail price of salt at Daitongungo 9 see s.  
Z11

211 Retail price of salt at Raghunathpore 1½ seers,

Published for the Information

Published for general information.

Published for general information.

COLMAN MACAULAY,  
*Secy. to the Govt. of Bengal.*

## WHOLESALE PRICES-CURRENT of Food-grains, Firewood, and Salt in

Number.	MARTS.	PRICES PER MAUND															
		WHEAT.				BARLEY.				RICE, BEST SORT.				RICE, COMMON.			
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	
R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	
1 Calcutta*	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
2 Serajunge	1 12 0	1 14 0	1 14 0	1 14 0	...	...	...	...	4 0 0	4 0 0	3 7 0	2 3 0	2 4 0	1 7 0	...	...	
3 Dacca	3 1 0	3 2 0	2 15 0	1 12 0	2 0 0	0 15 0	2 4 0	2 8 0	1 5 0	1 13 0	2 0 0	1 3 0	2 0 0	...	...	...	
4 Naraingunge	...	...	...	...	...	...	...	1 15 0	2 2 0	1 10 0	1 13 0	1 12 0	1 8 0	...	...	...	
5 Chittagong	3 14 0	3 0 0	4 2 0	...	...	...	2 10 0	2 14 0	2 4 0	1 14 0	2 0 0	1 8 0	...	...	...	...	
6 Patna	1 14 6	2 3 0	2 2 3	1 4 6	1 3 0	1 2 0	2 11 0	2 11 0	3 0 0	2 8 0	2 5 9	1 11 6	...	...	...	...	
7 Balasore	2 12 0	2 14 0	3 0 0	...	...	...	2 10 0	2 8 0	1 9 0	1 5 0	1 5 0	1 5 0	...	...	...	...	
8 Pooree	...	...	...	...	...	...	...	...	...	2 2 0	2 2 0	1 10 8	...	...	...	...	
9 Cuttack	2 14 0	2 10 0	2 14 0	...	...	...	3 0 0	3 0 0	2 5 0	1 11 0	1 11 0	1 6 0	...	...	...	...	

\* Return not received.

CALCUTTA,  
The 7th August 1883.

*the undermentioned Marts of Bengal for the Fortnight ending 31st July 1883.*

OF 40 SEERS

GREAT MILLET— CHOLUM, JOWAR.				LESSER MILLET— KAGI OR MURWA AND CHEENA.				MAIZE OR INDIAN- CORN.				GRAM.				FIREWOOD.				SALT.				MARTS.
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Present return.	Next preceding return.	Corresponding return of last year.		
R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	Calcutta.	
...	...	...	...	...	...	...	...	...	...	...	2 2 0	2 6 0 2	1 0	...	...	...	2 1 4	3 3 0	0 0 3	2 0	2 1 4	3 3 0 0 3	2 0	Serajunge.
...	...	...	...	...	...	...	...	...	2 6 0	2 4 0 1	14 0	0 6	6 0	4 0 0	5 0	3 4 0 3	4 0 3	3 0	Dacca.	...	...	...	...	Naraingunge.
...	...	...	...	...	...	...	...	...	2 4 0	2 8 0 1	14 0	0 7	0 0	7 0 0	7 0	3 2 0 3	2 0 3	2 0	Chittagong	...	...	...	...	Patna.
...	...	...	...	...	...	...	1 4 8 1	3 0 1	2 0 1	3 6 1	8 6 1	4 0 0	5 0 0	5 0 0	5 0	3 0 0 3	0 0 3	0 0 3	0 0 0	...	...	...	...	Balasora.
...	...	...	...	...	...	...	...	...	2 12 0	2 14 0 3	2 0 0	0 5	4 0	5 4 0	4 0 4	4 6 0 4	6 0 3	2 0	Poeron.	...	...	...	...	Cuttack.
...	2 0 0	3 0 0	2 2 0	...	...	...	...	...	2 0 0	2 2 0 1	11 0	0 8	0 0	8 0 0	4 0	2 12	0 2 12	0 2 12	0 3	0 0	2 12	0 2 12 0 2	12 0	

Published for general information.

**COLMAN MACAULAY,**  
*Secy. to the Govt. of Bengal.*

## Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.	DISTRICT.	Representative station.	STATION OBSERVATIONS.													
			AIR PRESSURE.			WIND.		TEMPERATURE.								
			Mean barometer height, 10 A.M.	Mean reduced to sea-level.	Variation from mean.	Pervailing direction.	Mean wind velocity miles per day.	Highest during week.	Lowest during week.	Mean maximum temperature.	Mean minimum temperature.	Mean daily temperature of week.	Variation from normal mean of week.	Mean 10 A.M. temperature.	Average humidity at 10 A.M. for week.	Average cloud amount at 10 A.M. for week.
ORISSA.	Pooree	Gopalpore	29°275	29°625	—	S	165	86°6	75°8	83°8	79°9	81°8	—	82°7	83	61
	...	False Point	29°585	29°607	+018	W	264	92°5	75°1	87°0	76°7	81°9	+1°9	85°8	75	81
	Cuttack	Cuttack	29°330	29°612	—	SW	86	92°4	73°8	88°0	77°5	82°8	+1°1	84°2	74	73
	Balasore	Balasore	29°514	29°573	—	SW	247	90°4	75°7	89°4	77°8	82°1	—	83°4	79	77
	South-West Midnapore	Saugor Island	29°569	29°595	+011	SW	398	89°2	77°0	87°1	80°0	83°5	+0°2	82°6	87	77
	South 24-Pergunnahs															
	Midnapore	Midnapore	29°431	29°572	—	Variable	?	90°5	73°3	86°4	76°1	81°3	—	82°2	85	84
	24-Pergunnahs															
	Howrah	Calcutta	29°545	29°567	+024	SW	141	91°0	75°2	86°5	77°8	82°2	+1°2	82°6	87	94
	Hooghly															
	Burdwan	Burdwan	29°463	29°563	+030	S	96	92°6	75°4	86°8	78°0	82°4	+1°5	80°5	88	100
	Bankura															
	Beerbhoom	Raniganj	29°154	—	—	SW	—	90°5	75°0	87°9	77°5	82°7	—	81°3	91	79
	West Burdwan															
	Moorshedabad	Berhampore	29°487	29°554	+049	S	111	90°6	75°5	87°6	78°5	83°1	+0°9	83°1	87	97
	Nuddea															
	Jessore	Jessore	29°545	29°578	+032	S	106°5	90°9	70°4	88°8	77°4	83°1	+0°2	84°1	84	89
	Khoonts															
	Chittagong	Chittagong	29°572	29°602	+007	SE	158	86°6	75°0	82°5	73°6	79°1	+2°2	80°7	88	79
	Chittagong Hill Tracts	Demagri														
	Backergunj	Barrisal	29°571	—	—	S	131°7	85°1	77°3	83°7	79°2	81°4	—	82°8	90	601
	Noakhally	Noakhally														
	Furreedpore	Furreedpore	29°523	—	—	S	168°8	90°5	77°1	87°6	78°5	83°1	—	82°9	86	70
	Dacca	Dacca	29°548	29°583	+040	S	134	88°3	77°2	87°7	79°1	83°4	+1°4	85°5	85	79
	Commillah	Commillah	29°583	29°610	—	SE	?	83°6	75°8	81°7	76°8	79°3	—	81°6	90	80
	Mymensingh	Mymensingh	29°552	—	—	SE	178	90°3	76°6	86°8	78°1	82°4	—	82°6	86	93
	Bogra and Pabna	Serajgunj														
	Rajshahye	Rampore Bemuleah	29°472	29°546	—	NW	267	91°6	75°6	89°3	79°1	84°2	—	84°5	81	51
	Dinapore	Dinapore	29°444	—	—	SE	168	92°1	76°6	90°0	78°4	84°3	—	84°0	85	77
	Rungpore	Rungpore	29°479	—	—	SE	151	92°8	77°0	90°8	78°4	84°7	—	85°6	78	67
	Julpigoree	Julpigoree	29°291	—	—	E	120	90°0	76°1	87°9	77°5	82°7	—	83°6	87	79
	Cooch Behar															
	Darjeeling Hill Districts	Darjeeling	22°865	—	—	E	55	69°6	57°2	68°1	53°8	63°1	—	63°9	94	100
		Dehree	29°218	29°572	—	Variable	?	88°4	69°0	84°0	71°6	77°8	—	83°3	83	70
	Shahabad	Buxar	29°331	29°572	—	Variable	127	91°4	77°7	87°5	79°3	83°4	—	83°1	85	82
		Arrah	29°348	—	—	Variable	—	90°4	77°6	88°0	79°2	83°7	—	83°6	85	87
	Gya	Gya	29°167	29°544	+059	Variable	62	91°2	74°3	87°3	74°9	81°1	+2°8	83°3	87	89
	Patna	Bankipore	29°379	29°532	+023	Variable	69	94°4	70°8	93°1	80°1	86°6	+1°9	83°0	87	100
	South Bhagulpore	Bhagulpore	29°364	29°508	—	Variable	103	92°9	78°0	89°9	78°1	84°7	—	85°1	83	50
	Moughyr															
	Sonthal Pergunnahs	Doomka	29°176	—	—	SE	—	89°1	74°8	87°2	76°7	82°0	—	82°3	92	64
	Purneah	Purneah	29°452	29°549	+040	E	41	92°2	77°8	90°7	78°4	85°1	+0°5	80°4	80	88
	North Bhagulpore															
	Mozufferpore	Durbhunga	29°389	29°555	+021	E	109	90°4	79°0	89°4	80°3	84°8	+0°5	85°2	86	66
	Durbhunga															
	Cumparan	Motihari	—	—	—	SE	—	87°1	76°9	85°4	76°5	81°9	—	85°9	76	40
	Sarun	Chupra	29°390	—	—	Variable	27	88°5	79°0	86°4	80°0	83°5	—	84°3	94	93
	Hazaribagh	Hazaribagh	27°564	29°555	+024	Variable	199	86°5	72°6	80°4	74°2	77°3	+0°7	77°2	90	110
	Lohardugga	Ranchee	27°453	29°566	—	—	—	85°0	69°7	80°2	71°8	76°0	—	76°9	88	97
	Manbhoon															
CHOTA NAGPUR.	Singhbhoom	Chybhoom	—													

Observations not commenced.

*Explanation of Summary.*—The normal means of air pressure and temperature are the arithmetical averages or means of the readings during the same observations, rainfall," the normal means are the numerical means or averages of the rainfall in that district determined from the returns sent in by the sub-divisions of that district, (i.e.) the total rainfall at the sub-divisional stations in the district sending in returns divided by the number of stations. A rainy

for the week ending 3rd August 1883.

Rainfall of week at observing station.	DISTRICT OBSERVATIONS.											Representative station.	DISTRICT.	METEOROLOGICAL DIVISION			
	RAINFALL.																
	Of week.		Since 1st of month.			Since 15th May.			Average number of rainy days during the week.	Normal number of rainy days of week.							
	Mean for district.	Normal mean for district.	Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.									
9.76											Gopalpore	...	Pooree	...			
1.99	1.52	3.11	15.04	14.27	+0.77	32.30	24.86	+7.44	5.2	4.2	False Point	...	Cuttack	...			
1.80	1.75	3.01	14.39	14.55	-0.16	31.35	25.11	+6.11	3.7	3.8	Balasore	...	Balasore	...			
1.46	2.78	3.60	14.71	15.40	-0.69	32.60	25.15	+7.45	3.2	4.0	Saugor Island	...	South-West Midnapore	...			
3.13	2.85	3.29	10.81	15.94	+3.87	31.58	28.35	+3.23	3.3	4.5	Midnapore	...	South 24-Pergunnahs	...			
6.45	7.90	3.04	17.90	13.28	+4.62	26.07	25.32	+0.75	5.0	3.9	Midnapore	...	Midnapore	...			
6.87	6.37	3.36	19.11	13.36	+5.75	30.12	26.29	+3.83	6.1	4.9	Calcutta	...	24-Pergunnahs	...			
7.02	7.06	3.20	20.48	11.59	+8.59	33.51	22.89	+10.62	6.0	3.8	Burdwan	...	Burdwan	...			
4.76	5.03	3.87	18.38	13.93	+4.45	34.07	26.51	+7.56	5.7	4.5	Raniganj	...	Bankura	...			
2.19											Berhampore	...	West Burdwan	...			
	2.77	3.42	12.11	12.19	-0.08	23.91	24.06	+1.85	5.0	4.2	Moorshedabad	...	Nuddea	...			
	3.15	2.98	12.04	11.42	+0.62	23.47	25.09	-1.62	4.8	4.0	Jessore	...	Jessore	...			
3.28	4.00	3.61	15.58	12.60	+2.98	27.00	28.92	-1.92	6.3	4.7	Khoolna	...	Chittagong	...			
6.63	10.61	8.85	31.98	34.07	-2.09	84.95	68.83	+16.12	7.0	5.6	Chittagong	...	Chittagong	...			
4.96	4.05	5.68	13.66	20.59	-6.93	34.43	44.09	-9.66	6.5	5.6	Demagri	...	Chittagong Hill Tracts	...			
	3.82	4.74	15.93	20.15	-4.22	35.61	45.29	-9.68	5.7	5.9	Barrisal	...	Backergunj	...			
	5.54	5.56	24.31	25.37	-1.06	67.78	59.30	+8.48	6.0	5.8	Noakhally	...	Noakhally	...			
5.97	4.24	4.51	16.00	13.90	+2.10	27.88	31.41	-3.53	6.7	4.8	Furreedpore	...	Furreedpore	...			
3.81	3.96	4.97	19.04	15.82	+3.22	30.01	34.00	-3.99	5.7	4.6	Dacca	...	Dacca	...			
7.47		4.39		16.08							Commillah	...	Commillah	...			
1.45	1.44	3.67	13.01	15.54	-2.53	26.62	37.89	-11.27	5.8	4.6	Mymensingh	...	Mymensingh	...			
	1.06	3.14	10.99	13.32	-2.33	24.99	29.72	-4.73	4.5	4.0	Serajgunj	...	Bogra and Pabna	...			
1.37	1.78	3.29	8.73	13.62	-4.89	21.42	27.09	-5.67	4.7	4.3	Rampore Beauleah	...	Rajshahye	...			
1.91	2.96	1.52	8.79	12.40	-3.61	23.17	31.26	-8.09	6.3	4.1	Dinapore	...	Dinapore	...			
0.82	1.63	3.06	8.01	16.47	-8.46	24.40	45.66	-21.26	3.3	3.7	Rungpore	...	Rungpore	...			
7.31	3.32	2.64	19.04	20.53	-1.49	50.45	62.96	-12.51	4.0	4.7	Julpigoree	...	Julpigoree	...			
4.30	8.42	5.23	27.68	42.06	-14.38	81.75	87.01	-5.26	6.0	6.0	Darjeeling	...	Darjeeling Hill Districts	...			
6.98			13.29								Dehree	...	Dehree	...			
4.89	3.83	3.54		13.29	+0.25	21.53	19.25	+2.28	6.3	3.9	Buxar	...	Shahabad	...			
5.20											Arrah	...	Arrah	...			
7.72	6.25	4.17	18.86	15.53	+5.33	30.17	20.32	+9.85	5.8	3.6	Gya	...	Gya	...			
2.83	4.38	3.06	10.05	12.63	+3.47	32.09	19.89	+12.80	6.0	3.8	Patna	...	Patna	...			
3.14	4.36	3.38	12.43	12.89	-0.46	24.20	21.04	+3.16	3.8	4.2	Bhagulpore	...	South Bhagulpore	...			
3.29	3.36	3.73	13.28	14.12	-0.84	26.66	25.18	+1.48	6.2	4.3	Monghyr	...	Monghyr	...			
3.22	2.27	2.78	9.33	15.28	-5.95	33.48	28.69	+4.79	4.3	4.1	Doomka	...	Sonthal Pergunnahs	...			
3.71	4.51	2.30	11.45	12.15	-0.70	28.41	20.56	+7.85	5.2	3.3	Purneah	...	Purneah	...			
3.13	4.90	1.98	12.67	12.29	+1.38	20.03	22.15	-2.12	3.7	3.2	Durbhunga	...	North Bhagulpore	...			
3.79	3.78	2.65	16.58	12.77	+3.81	26.44	20.28	+6.16	5.0	3.6	Chumparun	...	Chumparun	...			
3.25	3.73	3.50	17.22	14.68	+2.54	24.86	24.59	+0.27	6.0	4.9	Sarun	...	Sarun	...			
3.91	5.98	4.31	18.61	15.87	+2.74	30.94	25.09	+5.85	6.0	4.7	Hazaribagh	...	Hazaribagh	...			
11.64	3.86	22.55	15.14	+7.41	32.10	29.33	+2.77	6.9	4.9	Lohardugga	...	Lohardugga	...				
											Manbhoom	...	Manbhoom	...			
											Singhbhoom	...	Singhbhoom	...			

for the past 12 years. The variations are *negative* when the mean for the week is less than the corresponding normal mean and *positive* when greater.  
 10. The number denoting cloud amount represents the part of the sky covered, the whole sky being denoted by 10. Under the head "district observations" stations for the period in question during the past 12 years. The "mean for the district" are the numerical averages of the rainfall returns received  
 11. one on which at least an hundredth of an inch fell.

CHOTA NAGPUR, SOUTH BANARAS, NORTH BANARAS, NORTH BEHAR, SOUTH BEHAR, EAST BENGAL, NORTH BENGAL, CHITTAGONG, SOUTHWEST BENGAL.

## Statement of Rainfall in Bengal for the week ending Friday (6 p.m.), the 3rd of August 1883.

Meteorological division.	District.	Station.	RAINFALL.							Total.		Average total rainfall from 1st July to 3rd August.	Total rainfall since 13th May.	Average rainfall from 1st May to date.
			Saturday, 28th July.	Sunday, 29th July.	Monday, 30th July.	Tuesday, 31st July.	Wednesday, 1st August.	Thursday, 2nd August.	Friday, 3rd August.	Number of rainy days.	Rainfall week.			
ORISSA	Pooree	Pooree	0'01	0'52	0'76	0'03	0'15	5	1'47	14'80	12'33	33'69	21'25	
		Khurdah	0'11	0'19	0'29	0'13	0'28	0'30			14'83		24'36	
		Banpar		0'10	1'20						13'50		23'72	
	Cuttack	False Point	0'03	0'07	0'02	1'63	0'14		0'10	6	1'99	16'75	16'44	36'27
		Hookitola			0'95	0'78							27'06	
		Jagatsingapore	0'10	0'49			1'10			3	1'60	12'43	11'70	20'02
SOUTH-WEST BENGAL	Midnapore	Banki	0'19	0'01	0'03	0'21								
		Cuttack	0'02	0'02	0'83	0'52	0'07	0'67						
		Kendrapara		0'79		1'40		0'29	0'80	4	3'28	15'70	14'03	32'72
	24 Pergunnahs	Jajpore				0'65	0'10			2	0'75	15'87	16'78	33'13
		Balasore												
		Chandbali				1'90	0'05			2	1'85	13'88	15'33	41'06
BENGAL	Howrah	Bhuddruck	0'64			0'48	0'08		0'70	4	2'59	13'29	14'70	31'92
		Sorah				2'60	0'15			2	2'65	11'92	14'69	29'82
		Balasore		0'43	0'90	0'32				3	1'65	11'05	15'58	32'48
	Burdwan	Jelasore		0'48	1'68	0'22		0'30		4	2'66	16'59	17'22	33'66
		Baripodah				0'92	1'94	2'38	0'01	4	5'25	18'40	14'79	25'98
		Diamond Harbour.	0'69		0'26	1'59	1'34	0'03		5	3'31	18'27	15'36	25'12
NORTHERN BENGAL	Hooghly	Alipore Jail	1'43	0'60	0'83	1'81	1'50	0'19	0'01	7	6'47	17'97	14'18	27'88
		Harrackpore	1'00			1'55	1'61	0'07	0'04	5	4'27	17'27	13'09	28'69
		Dum-Dum	0'36	0'61	0'24	2'33	3'02	0'05		6	4'61	18'66	12'65	28'43
	Murshidabad	Barasat	0'46		0'72	1'76	0'76	0'09		5	3'79	16'70	11'95	27'54
		Buseerhat	0'38		0'95	5'08	0'90	0'46	0'79	6	8'84	24'91	13'13	40'46
		Howrah	0'45	2'00	0'37	2'67	1'43	0'07		6	6'99	16'44	13'90	26'33
CENTRAL BENGAL	Bardhaman	Mohesreka	0'39		0'33	2'35	3'85	0'05	0'62	6	7'39	20'17	14'44	29'13
		Bankura	0'37	0'24	1'34	1'80	0'88	0'07	0'02	7	4'31	17'69	13'05	28'81
		Jehanabad	0'26		0'98	3'59	2'94	0'33	2'48	6	10'58	18'15	14'03	28'97
	Bardhaman	Culna	0'05		1'68	1'01	3'64	0'03		5	6'43	20'97	11'93	32'83
		Burdwan	0'49	0'01	1'13	3'23	1'32	0'14	0'14	7	6'96	23'04	11'22	38'68
		Cutwa	0'12		0'05	2'97	4'22	0'14	0'30	6	7'89	16'98	11'63	29'18
NORTHERN HILL TRACTS	Raniganj	Raneeunge	0'18	0'05	1'77	1'88	0'87	0'11	0'08	7	4'94	24'93	12'82	46'66
		Bankoora	0'10		2'45	0'95	0'85	0'05	0'10	6	4'50	19'80	13'17	25'34
		Bishenpore	0'19		0'26	1'18	0'76			5	2'64	11'18	13'35	25'86
	Jharkhand	Malisar	0'35			2'00	0'97			6	3'39	13'98	12'81	27'38
		Khatra	0'30		1'36	1'23	1'62			5	4'80	14'71	17'78	26'26
		Beerbhoom	Bh. Soory	0'15		1'08	1'11	8'17	6'00	0'02	6	10'62	27'69	14'13
EASTERN HILL TRACTS	Jharkhand	Hetampore	0'14		1'22	1'28	1'41	0'27		5	4'32	17'32	15'40	25'99
		Nuddea	Bongong		1'30	0'35	3'70			3	5'35	17'47	12'00	25'75
		Ranagnath	0'11	0'10	0'21	0'85	5'45	0'60		6	7'32	23'13	10'80	30'07
	Mymensingh	Kishinaghur	0'09			2'04	0'09	0'06	0'41	5	2'69	8'99	11'57	23'19
		Choodangra	0'55		0'40	0'15	0'42		0'15	5	1'67	8'70	11'12	26'19
		Meherpore	0'14		0'03	0'38	0'45			5	0'73	7'38	10'92	20'42
WESTERN HILL TRACTS	Khowla	Kooshitesa	0'10		0'95		0'67	0'12	0'22	5	1'16	7'39	12'11	24'82
		Satikira	0'16	0'08	0'92	4'38	0'96	0'15	0'97	7	7'62	24'23	15'09	38'98
		Bagirhat	1'27	0'03		1'65				3	5'53	15'63	10'24	20'3
	Jharkhand	Khoolina	0'24		0'28	0'67	1'40	0'30	0'10	6	3'08	11'67	15'31	25'08
		Jessore	Narail	0'15	0'17	1'25	0'32	1'43	0'40	7	4'22	13'34	10'42	25'29
		Jhoniadah	0'11		0'04	1'50	1'26	0'07	0'02	6	3'63	15'31	12'08	29'90
NORTHERN PLATEAU	Mymensingh	Magoorah	0'08		0'08	0'66	0'56	0'28	0'30	6	1'36	11'18	11'00	22'19
		Kandi	0'19		1'77	0'75	1'25	0'17	1'03	6	5'16	17'58	11'47	31'22
		Rampore Hau	0'17		0'44	2'30	0'10		0'90	5	3'91	15'61	13'65	25'94
	Dacca	Berhampore	0'06		0'41	2'47	2'59			3	5'47	15'54	12'17	32'12
		Lalbagh		0'50	0'09	0'98	0'16	0'06	0'22	7	2'07	10'28	12'33	24'31
		Astmarunge	0'62	0'36	0'10	0'44	0'06	0'03	0'17	7	2'35	11'91	9'91	23'57
CENTRAL PLATEAU	Chittagong	Jungipore	0'85		0'39	0'55			0'12	4	1'91	12'43	11'61	27'05
		Lalgola	0'57	0'32	0'98	0'50	0'48		0'15	6	2'08	13'32	12'89	23'16
		Cox's Bazar	1'13	2'21	2'62	4'31	2'60	0'95	0'10	7	14'92	37'66	43'35	93'58
	Chittagong Hill Tracts	Chittagong	0'37	0'51	1'05	2'19	2'18						23'77	53'16
		Rangamati	0'04	0'24	1'19	0'25	0'74	0'28	0'16	7	2'90	12'83	25'48	84'32
		Kuma		1'45	0'75	0'90	1'25	0'63	0'22	6	5'29	16'72	17'66	45'40
SOUTHERN PLATEAU	Backergunge	Agartola		0'31	0'48		0'72	0'28					13'76	32'3
		Patuakhally			2'40	0'70	0'65	0'25		4	4'00	19'50	25'38	40'95
		Verozopore	0'04	0'33	0'07	0'48	1'30	0'62		6	2'84	14'43	19'02	31'30
	Dacca	Burrisho	0'22		0'65	0'28	0'20	0'19	0'77	7	4'37	15'95	17'23	33'67
		Bhuda	0'41	0										

## Statement of Rainfall in Bengal for the week ending Friday (6 p.m.), the 3rd of Aug. 1883—concluded.

Meteorological division.	District.	Station.	RAINFALL.							TOTAL.		Number of rainy days.	Rainfall week.	Total rainfall from 1st to 3rd August.	Average total rainfall from 1st to 3rd August.	Total rainfall since 15th May.	Average rainfall from 15th May to date.
			Saturday, 28th July.	Sunday, 29th July.	Monday, 30th July.	Tuesday, 31st July.	Wednesday, 1st August.	Thursday, 2nd August.	Friday, 3rd August.								
NORTH BENGAL	Purnea	Purnea	0'08	.....	.....	0'11	0'17	0'07	0'13	5	0'56	8' 9	11'41	21'79	26'82		
		Serajgunge	.....	.....	.....	0'48	0'20	.....	.....	2	0'68	12'65	12'13	28'27	27'45		
	Bogra	Sherpore	0'15	.....	0'25	0'61	.....	0'15	0'48	5	1'64	9'76	16'47	17'92	33'78		
		Newkhilma	0'15	0'06	0'25	0'12	0'27	0'06	0'03	7	0'98	8'83	12'73	17'75	29'34		
		Bogra	0'04	.....	0'69	0'60	0'31	0'07	0'46	6	2'17	17'03	15'91	27'81	33'87		
		Panchbibi	.....	0'21	.....	0'55	.....	.....	0'44	3	1'21	8'53	14'65	20'70	29'83		
	Rajshahye	Beaulah	0'05	0'56	.....	.....	0'81	.....	0'07	4	1'49	6'54	13'78	16'15	26'67		
		Nattore	.....	.....	.....	1'50	0'15	.....	0'40	3	2'05	8'40	14'29	18'05	28'30		
	Maldah	Maldah	0'43	0'03	0'30	0'46	0'24	0'15	0'20	7	1'81	11'24	12'91	23'20	26'23		
		Mohadebpore	0'23	0'03	0'37	0'31	0'08	0'35	1'12	7	2'49	11'10	12'53	20'16	33'58		
	Dinagepore	Churamun	0'08	0'96	.....	1'48	0'50	0'12	.....	5	3'14	8'06	10'15	21'78	24'81		
		Raijunge	0'03	0'05	0'03	2'38	0'06	0'07	0'16	7	2'97	7'77	12'05	21'95	31'54		
		Dinagepore	0'03	1'12	.....	1'13	.....	0'10	0'15	5	2'53	7'68	14'88	23'65	36'09		
		Baloorhat	.....	0'15	.....	3'0	.....	4'77	0'10	4	6'32	12'25					
KOLKATA	Rungpore	Bhawanigunge	1'41	0'08	.....	.....	0'29	0'16	4	1'94	10'85	13'79	32'50	34'55			
		Rungpore	0'13	0'70	.....	0'20	.....	0'03	0'03	5	1'00	4'37	19'94	23'34	46'25		
		Kurigram	0'15	.....	.....	0'25	.....	.....	.....	2	0'40	4'28	16'45	27'00	45'04		
		Bagdogra	.....	0'09	.....	3'02	.....	.....	.....	2	3'11	10'32	15'67	33'46	55'72		
	Julpigorce	Julpigorce	0'01	.....	1'46	4'72	.....	0'54	0'98	5	7'71	23'14	26'90	66'38	62'69		
		Cooch Behar	.....	0'12	2'22	0'19	.....	0'16	.....	4	2'69	14'46	12'45	38'06	56'01		
	Darjeeling	Dinhatta	.....	.....	2'02	1'32	.....	.....	.....	2	4'24	22'20	23'73	57'39	65'50		
		Mickligrunge	0'11	.....	.....	0'69	0'34	.....	.....	3	0'54	14'97	19'14	46'72	66'90		
	Darjeeling Hill.	Matabhanga	0'09	0'10	0'78	0'21	.....	0'24	0'02	6	1'44	18'47	20'45	59'02	65'14		
		Buxa	1'45	2'27	4'18	0'18	.....	0'71	1'50	6	16'29	37'92	52'18	80'49	114'48		
	North Bhagulpore	Silinguri	0'03	1'60	3'65	0'13	0'52	1'02	0'05	7	7'00	21'52					
		Durbhunga	0'24	.....	0'50	0'88	0'74	0'12	0'23	6	2'71	7'53	12'89	27'77	31'37		
NORTH BHAR	Furneah	Madaspore	0'25	.....	0'60	0'95	0'41	.....	0'24	5	2'45	13'16	13'35	61'37	22'28		
		Soopool	.....	0'30	.....	3'10	0'15	.....	0'25	4	4'20	6'35	13'44	31'45	29'39		
	Durbhunga	Tajpore	0'20	0'05	0'60	0'33	5'48	0'05	.....	6	6'71	10'41	12'87	31'21	20'26		
		Durbhunga	0'24	.....	0'50	0'88	0'74	0'12	0'23	6	2'71	7'53	12'89	27'77	31'37		
	Mozafferpore	Madhubani	0'05	.....	0'36	3'06	0'92	.....	0'14	5	5'43	13'95	10'61	30'02	20'44		
		Sitamarhi	.....	0'20	.....	1'59	1'59	.....	.....	3	3'38	8'62	11'15	16'03	20'63		
		Mozafferpore	0'22	0'48	0'41	0'44	2'21	0'31	.....	6	4'07	11'35	12'01	32'22	20'57		
	Chumparun	Hajipore	0'36	.....	0'36	3'34	0'58	0'13	5	4'77	10'88	12'73	20'60	18'83			
		Motibari	.....	1'70	.....	1'14	1'87	.....	.....	3	4'80	12'81	10'41	19'72	20'20		
		Bettiah	1'46	.....	0'50	1'10	0'93	.....	0'08	5	4'96	14'70	13'12	20'67	23'99		
SOUTH BHAR	Shahabad	Gopalgunge	2'22	0'73	.....	2'89	.....	.....	.....	3	5'84	13'51	13'34	19'72	22'33		
		Sewau	0'54	0'19	1'10	0'06	1'10	0'07	.....	6	2'97	15'07	13'47	22'90	23'09		
	Gya	Chuprah	2'12	.....	.....	0'58	1'67	.....	0'22	4	4'59	18'07	12'03	29'94	18'45		
		Buxar	0'45	1'52	0'15	0'37	0'30	0'53	.....	6	3'32	14'75	12'82	22'63	18'07		
	Patna	Dehree	0'90	.....	1'92	0'36	0'40	3'00	0'40	6	7'18						
		Khuboobah	0'08	0'30	0'05	0'78	0'11	1'00	0'14	7	2'86	15'11	14'06	18'41	20'18		
	Patna	Sasseram	0'66	0'06	0'14	0'53	0'54	2'08	0'08	7	4'15	11'42	14'51	19'86	20'25		
		Arrah	1'03	1'57	.....	2'67	0'12	0'05	5	5'46	11'07	11'88	22'75	18'45			
	Monghyr	Aurungabad	0'25	0'26	1'93	1'11	0'32	1'18	0'30	7	5'40	12'99	14'67	22'99	20'83		
		Gya	2'02	.....	1'23	0'60	2'32	1'55	.....	5	7'72	16'93	13'09	39'04	20'04		
	South Bhagulpore	Nowadah	0'23	.....	0'33	1'83	1'04	0'64	0'08	6	4'15	17'50	12'80	25'94	20'37		
		Jehanabad	4'19	.....	0'35	0'88	1'40	0'10	5	7'72	22'20	12'95	33'01	19'15			
CHUTIA NAG-BORNE	Purnia	Pata	0'25	.....	0'18	0'67	1'59	0'08	6'29	6	3'06	11'16	12'55	20'14	20'70		
		Dimapore	0'10	0'40	.....	0'45	1'60	0'40	0'10	6	3'05	12'70	11'83	23'80	10'31		
	Monghyr	Behar	0'12	0'05	1'02	1'70	1'30	0'22	.....	6	4'41	23'67	12'68	46'73	20'10		
		Barrh	0'10	0'60	0'21	0'70	5'13	0'20	.....	6	6'09	16'02	13'20	31'06	19'41		
	South Bhagulpore	Begoorserai	0'01	.....	0'68	1'14	1'89	0'56	.....	5	4'28	13'66	13'59	34'36	19'15		
		Monshy	.....	.....	3'70	1'40	0'06	.....	3	4'76	9'26	12'88	19'40	20'96			

SUMMARY OF METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL FOR THE WEEK ENDING FRIDAY, 3RD AUGUST 1883.

THE principal points of interest in the meteorology of the past week have been the westerly advance of the slight barometric depression noticed in the summary for the previous week, and the formation of another barometric depression in Eastern Bengal, its subsequent advance in a north-westerly direction, and final disappearance. The formation of this first barometric depression was explained in the summary of July 27th, and its course was traced from the Sunderbans, where it took its origin, into Midnapore and the adjacent districts, where it was on the morning of the 27th instant. During the following day the depression advanced into the southern districts of Chutia Nagpur, and on Sunday, the 29th instant, it apparently filled up and disappeared. This depression was of slight intensity only, but it brought general rain to the districts through which it passed, and its advance into the interior was of course accompanied by increased indraught of moist southerly winds into Bengal. The rainfall was not heavy on the 27th and 28th, but on the 29th, in the districts of Eastern Bengal, heavy rain commenced to fall; the heavy rain continued over this area on Monday, 30th instant, and the rainfall was accompanied by a gradually falling barometer, and thus the nucleus of a barometric depression was formed; a continuation of the same conditions on the 31st intensified the barometric depression, which was, however, never more than a shallow one, and had no very clearly defined centre of disturbance; the depression was on that date in the immediate neighbourhood of Dacca. It was now giving rise to moderately strong winds of convergence, with overcast skies and general rain, moderate to heavy in amount, over the whole province, the heaviest rainfalls being in Eastern Bengal and in South-West Bengal.

On Wednesday, 1st August, the depression commenced to move in a north-westerly direction, and on the Thursday had almost entirely passed away. The advance of this depression caused a further inrush of damp monsoon winds over the whole province, producing overcast skies and moderate to heavy rain, especially in the southern and south-eastern districts. The rainfall in the North Bengal division was not so heavy as in others, and in the Rungpore district in particular, rainfall has been comparatively scanty. After the disappearance of the second depression, normal monsoon winds continued to blow on the 2nd and 3rd of August, but they were perceptibly becoming weaker, especially on Friday, the 3rd instant.

Pressure has been generally below the normal for the week; on the 28th instant it was below the average by small amounts, but it gradually recovered itself until the 30th instant, when it began to give way again. With the development of the second barometric depression pressure fell rapidly until it was 0.12" below the normal at Dacca; the line of low pressure varied with the advance of the depression, and, as it filled up, pressure returned nearly to the normal state. On the whole, the barometric pressure has been below the average for the week, ranging from 0.059" in defect at Gya to 0.011" in defect at Saugor Island. Temperature commenced to rise somewhat at the commencement of the week, and was, especially in Behar, above the average, but with the heavy rainfall, it afterwards fell considerably below the normal; on the whole, the temperature has been rather lower than the average by amounts varying from 1° to 2°, except at Dacca and at Bankipore. Patna continued to register the highest maximum temperature steadily throughout the week. Winds have been slightly irregular during the week, due to the formation and advance of the two barometric depressions above referred to. Westerly winds have still been a prominent feature in Behar, and this is one of the more important abnormal features of the present monsoon. At the close of the week winds were almost normal.

*Abstract of Meteorological Report for the week ending 3rd August 1883.*

The rainfall of the past week has been considerably in excess of that of the week ending the 27th July; this excess has been most marked in Chutia Nagpur, North Behar and South-West Bengal. Over the whole Province the rainfall has been on the average up to the normal amount for the week, for while four of the meteorological divisions received amounts considerably in excess of the average, only three divisions received a slightly deficient rainfall.

In the Chutia Nagpur division the excess rainfall amounted to 50 per cent. of the normal, and the excess appeared to be general in most districts. In North Behar on the average the excess was nearly 60 per cent. of the normal, but it was decidedly unequally distributed, for the Purneah district received rather less rain than the average amount. South-West Bengal on the average received about 40 per cent. in excess of the normal, but in this division some of the stations in the Nuddea district are behind the average. In South Behar the excess rainfall averaged about 24 per cent. of the normal, but the excess was well distributed. Of the three divisions which received less than the normal rainfall, North Bengal showed a deficit of about 13 per cent., and this deficiency was specially marked in the Rungpore district, for the two stations, Rungpore and Kurigram, registered only about three-fourths of the normal amount, while the Pubna district also had a decidedly diminished rainfall. In East Bengal the deficiency amounted to about 12 per cent., but it was fairly equally distributed, while in Orissa the heaviest deficit of about 35 per cent. occurred. The above table, however, shows that in all divisions the number of rainy days during the week was fully up to the average, so that the deficiency of rain in these three divisions was probably due to the lightness of the rain showers themselves, and not to want of seasonable weather. The last two columns of the same table also show that the rainfall over the whole province, since the 15th of May, is fairly well up to date, for in only two divisions (the North and East Bengal) is the amount of rain recorded at all below the average for this period.

*Saturday, 28th July.*—Pressure increased over the whole Province during the previous 24 hours. The increase was large in Bengal (more especially in South Bengal) and Orissa, and moderate in Chutia Nagpur and Behar. Pressure was still below the average by small amounts, ranging from '02" at Saugor Island to '09" at False Point. The slight depression which was on the 27th instant in the Midnapore and adjacent districts passed westward into the Central Provinces or the southerly districts of Chutia Nagpur. Temperature had changed very slightly. The mean temperature of the past 24 hours was 4° below the average in Orissa, 1° above it in East and South-West Bengal, 2½° above it in North Behar, and nearly 4° in excess at Patna. Winds were lighter again at the head of the Bay. They had shifted round with the westerly advance of the depression into east and south-east in Behar and Chutia Nagpur, excepting in Orissa, where winds were from the south-west. Winds were from directions between south and east throughout the Province. Humidity was again greater in East Bengal. It was lowest in North Bengal and Behar, where the rainfall was scanty. The cloud amount was less, more especially in South Behar, at several stations of which the sky was almost free from cloud. Light, but general rain fell over the greater part of the Province, except in Orissa and North Bengal, where it was somewhat irregularly distributed. The amounts in most cases did not exceed half an inch, though falls of over 2 inches occurred at Chupra, Gya, and Chyebassa. The divisions which received least rainfall were Orissa, North Bengal, and some parts of South-West Bengal.

*Sunday, 29th July.*—Pressure again increased over the whole Province, the increase being greatest in Orissa and in South-West Bengal. Pressure was slightly above the average of the day at several stations, but was still below it in South-West Bengal, Behar, and Chutia Nagpur. The baric gradients over the Bay were in consequence of these changes smaller than they had been for some days. Temperature had not altered much since the previous day. It was, however, slightly higher in Orissa and in Behar, where Patna to-day registered a maximum temperature of 94 4°. Winds had altered little in direction, but were generally weaker, more especially at the head of the Bay and in South Bengal. They were drawing round again to south-west in South-West Bengal. Humidity had decreased in Orissa and at Saugor Island. The sky was overcast, or thickly clouded in all parts of the Province except North Behar, the western districts of which, as represented by Motihari, were almost free from cloud. Rain was less general than on the previous day. In Orissa, in South-West Bengal, and North Behar local showers only were reported; in North Bengal, South Behar, and Chutia Nagpur rain was more general; and in East Bengal rain fell at almost every reporting station, and in many cases in considerable quantity. Chittagong reported 3.21 inches, Hazaribagh 3.4 inches and Jehanabad in the Gya district 4.99 inches.

*Monday, 30th July.*—Pressure decreased over the Province, except in Chutia Nagpur, South Behar, and locally at two or three stations in Bengal and Orissa. The changes were small and generally unimportant. Pressure was, however, relatively low in East Bengal and North Behar. It varied from the normal of the day by small amounts only. Temperature had increased and was above the normal, except at Chittagong and in Orissa. The mean temperature of the past 24 hours was from 1° to 3° above the average in Bengal, Behar, and Chutia Nagpur. Winds were slightly stronger again at the head of the Bay. There was a strong westerly element in the wind direction in South Behar, Chutia Nagpur, and

South-West Bengal. Winds were south-easterly to southerly in East Bengal, south-westerly in South-West Bengal, easterly in North Bengal and North Behar, and north-westerly to westerly in South Behar and Chutia Nagpur. This change accompanied a slight depression of the barometer in Bengal at Dacca. Humidity increased in East Bengal. The air was unusually dry in Orissa. The sky was clouded over in South-West and East Bengal, and also at several stations in South Behar and in Chutia Nagpur. The general and somewhat heavy rainfall which had commenced on the 29th in Eastern Bengal, to-day extended over the whole Province, except in Orissa and some parts of North Bengal. The rainfall was very heavy in Eastern Bengal, in the Darjeeling district and in the southern districts of South-West Bengal; Buxar reported 4.18 inches, and Siliguri 3.65 inches, while several stations received between two and three inches of rain.

*Tuesday, 31st July.*—Pressure decreased briskly over the Province. The fall of the barometer was greatest in East and North Bengal, and was least in Orissa, where pressure was still slightly above the average. It was again below the normal of the day by amounts ranging from '01" at Saugor Island to '12" at Dacca. Pressure was low over the greater part of Central Bengal, but was apparently lowest in the immediate neighbourhood of Dacca. Temperature again fell with the increased rainfall at most stations, but the mean temperature of the previous 24 hours was slightly above the average in Orissa and North Behar, and also at Patna. Winds were mainly determined by the barometric depression in East and Central Bengal. They were of moderate intensity at the head of the Bay, and were slightly stronger in South Bengal. They were south-westerly in North Orissa and South-West Bengal, south-easterly in East Bengal, easterly to north-easterly in North Behar, and westerly over the greater part of Behar. They thus gave cyclonic circulation of the air over the Province. The air was much damper in every part of the Province, and was almost saturated at the majority of the stations. The sky was overcast over the whole of the Province with the exception of a small part of Central Bengal represented by Rampore Beauleah. The heavy rainfall noticed in the report of the 30th instant continued over the Province. It was particularly heavy in Eastern and in South-West Bengal, in the latter district the average fall at each station was nearly two inches. Busseerhaut to-day reported the large amount of 5.68 inches, Satkhira (Khoolna district) 4.38 inches, and Moonshegunge and Naraingunge each 4.62 inches.

*Wednesday, 1st August.*—Pressure decreased in Orissa, South-West Bengal, and Chutia Nagpur, and increased over the rest of the Province. The changes were generally small, the largest occurring at Dacca and Chupra, where the barometer had risen rather rapidly. Pressure was lowest in Central Bengal as was indicated by the barometric readings at Calcutta, Burdwan, Rampore Beauleah, and Bhagulpore. There was, however, no definite centre of minimum pressure. Pressure was below the normal at all stations, except Cuttack, by amounts ranging from '01" at False Point to '07" at Burdwan. Temperature again decreased with the continued rainfall, and was below the average at all stations except Durbhangha. The mean temperature of the past 24 hours was  $4\frac{1}{2}^{\circ}$  in defect in Orissa,  $3\frac{1}{2}^{\circ}$  in Central Bengal, and from  $1^{\circ}$  to  $5^{\circ}$  over the greater part of Behar and Chutia Nagpur. Moderately strong monsoon winds charged with moisture were blowing across the Bengal coast. The winds in Bengal indicated general cyclonic circulation round the area of depression in Central Bengal. Winds were north-westerly in South Behar and Chutia Nagpur, westerly in Orissa, south-westerly in South-West Bengal, southerly to south-westerly in East Bengal, and easterly to north-easterly in North Bengal and North Behar. They were generally in excess of their normal strength. The air was very humid throughout the Province, and was almost saturated in South-West and East Bengal, Chutia Nagpur, and near the hills in North Bengal. The sky was overcast at the great majority of stations. The cloud amount was less in the central districts of North Bengal than elsewhere. Very general rain again fell over the whole Province. It was very heavy over the greater part of the area, and large amounts fell in Eastern and South-West Bengal, especially in the Midnapore, Beerhoom and Nuddea districts. The largest amounts reported were Beerhoom Soory 8.17 inches, Tumlook 5.5 inches, and Ranaghat 5.45 inches.

*Thursday, 2nd August.*—Pressure increased in Bengal and Orissa, but decreased in Behar and Chutia Nagpur. The rise of the barometer was moderately large in South Bengal. The fall was greatest at Hazaribagh, where the barometer was lowest. The depression of the past three days had again travelled westwards, and now apparently extended over the southern districts of Chutia Nagpur. Temperature was below the average at all stations except Patna. The mean temperature of the past 24 hours was  $2^{\circ}$  in defect in Orissa,  $5^{\circ}$  in Central Bengal,  $2\frac{1}{2}^{\circ}$  in East Bengal,  $1^{\circ}$  in North Behar, and  $4^{\circ}$  in Chutia Nagpur. Winds altered considerably over the western half of the Province in consequence of the westward movement of the large, but shallow, barometric depression. Southerly to south-westerly winds prevailed to-day in Orissa and South-West Bengal, south-easterly winds in East and North Bengal, and easterly winds in Behar and Chutia Nagpur. Winds were somewhat stronger at the head of the Bay, and the directions throughout the Province were such as usually prevail when the Bay of Bengal branch of the monsoon current is fully established over the whole Province. Humidity had increased in Orissa, and to a less extent over the remainder of the Province except Chutia Nagpur and the Darjeeling hills, where the air was almost saturated. Sky was much less clouded to-day, and was overcast at only a few of the reporting stations.

The heavy rainfall of the previous days began to diminish, and it became to-day less general, and smaller in quantity. The heaviest rainfall occurred in the South Behar division, where it was very general; the Shahabad and Gya districts in particular received an average from an inch to one and-a-half inches. Chutia Nagpur also received general rain, moderate to heavy in amount. In South-West and East Bengal rain was also general, though it did not average more than half an inch over the whole area, while in Northern Bengal the rainfall was less general, though heavy at two or three centres. In Orissa (with the exception of one station) the rainfall was scanty, but the North Behar division was almost rainless. The following were the heaviest amounts recorded:—Baloorhat, (Dinapore district) 4·77 inches, Dehree 3·00 inches, Sasseram 2·08 inches, Darjeeling 2·11 inches, Palamow 2·32 inches, and Baripodah, in the Balasore district, 2·38 inches.

*Friday, 3rd August.*—Pressure increased slightly at all stations. The relative distribution of pressure was thus unaltered. The variations from the average pressure for the day were small and of little importance, except in South Behar and Chutia Nagpur, where pressure was deficient by amounts which averaged .04". Temperature increased during the previous 24 hours, and was generally slightly above the average, except in Central Bengal and at Gya, where it was 3° below it. Winds were similar to those of the 2nd instant, except that they were lighter and less steady. They were southerly to south-westerly in Orissa and South-West Bengal, south-easterly in East and North Bengal, and easterly to north-easterly in Behar. The air was drier in South Behar and was unusually dry in North Bengal. The sky became somewhat more clouded, especially in South Behar and Chutia Nagpur.

Rain was again less general and in smaller quantity than on the 2nd instant. The Eastern Bengal division was the only one in which the fall was general, though in all cases the amounts were small; in South-West Bengal and in North Behar the rainfall was somewhat less general, light local showers only being reported in most instances. In Northern Bengal there was light general rain except in the Rungpore and Cooch Behar districts, while in South Behar there was also light general rain, which did not, however, extend to the Patna, Monghyr and South Bhagulpore districts. In Orissa the returns which have been received show that the rainfall was confined to a few local showers, while in Chutia Nagpur rain fell at almost every station, the amounts, however, being in most cases somewhat small.

The only heavy falls reported to-day were Jehanabad, in the Hooghly district, 2·48 inches and Buxa 1·50 inches.

## MEMORANDA.

THE subjoined table shows—

1. That during the week ending 21st July 1883, the mean birth and death-rates in the first class Municipalities in Bengal amounted to 18.3 and 28.4 per 1,000 of population, respectively, as opposed to 17.3 and 28.9 per 1,000, respectively, in the preceding week ending 14th July.

2. That the under-mentioned Municipalities registered the highest proportions of births and deaths :—

<i>Births.</i>	<i>Ratio per mille.</i>	<i>Deaths.</i>	<i>Ratio per mille.</i>
Gya .. ..	66·9	Gya .. ..	91·5
Bhagulpore .. ..	29·9	Poori .. ..	68·5
Burdwan .. ..	25·9	Ranaghata .. ..	53·9
Durbhanga .. ..	25·2	Mozufferpore .. ..	41·4
		Patna .. ..	36·7
		Burdwan .. ..	33·6
		Monghyr .. ..	30·7
		Bhagulpore .. ..	27·1

3. That the mean mortality from the different causes, mentioned in the table, stood as follows:—

	Ratio per mille during the weeks ending—	
	21st July.	14th July.
Cholera .. .. .. .. 5·6 6·3		
Small-pox .. .. .. .. .3 .4		
Fever .. .. .. .. 11·4 10·3		
Bowel-complaints .. .. .. .. 4·3 4·4		
Injury .. .. .. .. .4 .7		
Other causes .. .. .. .. 6·4 6·8		

indicating that, in comparison with the preceding week, there was an abatement of mortality from cholera with a rise in fatality from fever, the death-rates from the other diseases exhibiting only fractional differences.

4. That while small-pox and fever prevailed with normal severity in all the Municipalities (excepting in Bhagulpore, where 2·7 per 1,000 of the population died from the former disease, and in Ranaghát, in Nuddea, where the mortality from the latter disease stood so high as 47·9 per 1,000), cholera and bowel-complaints proved conspicuously fatal in the following Municipalities:—

<i>Cholera.</i>		<i>Bowel-complaints.</i>	
	Ratio per mille.		Ratio per mille.
Gya ..	.. 51·2	Poori ..	.. 12·8
Poori ..	.. 47·1	Chuprah ..	.. 10·7
Mozufferpore ..	.. 13·4		
Monghyr ..	.. 7·2		
Midnapore ..	.. 6·2		

5. That eliminating Buddhists, of whom only one died in the Darjiling Municipality, the death-rates returned by the other *Classes* or *Nationalities* were 33 per 1,000 by Christians, 30·6 by Hindus, and 22·9 by Mahomedans.

6. That the mortality bearing reference to *Age* ranged as follows:—

<i>Age.</i>	Ratio per mille.	<i>Age.</i>	Ratio per mille.
Under 1 year ..	278·6	50 and under 60 years ..	18·9
1 and under 5 years ..	52·4	30 and under 40 ..	18·3
60 years and upwards ..	39·1	15 and under 20 ..	17·2
5 and under 10 years ..	24·1	40 and under 50 ..	16·1
20 and under 30 ..	18·9	10 and under 15 ..	14·4

TII-C4L-August 1989

F. W. A. DEFABECK,

F. W. A. deFABECK.



OFFICE OF SANITARY COMMISSIONER FOR BENGAL  
*The 6th August 1883.*

F. W. A. deFA BECK,  
Off. Sanitary Commissioner for Bengal.

Results of the Meteorological Observations taken at the Alipore Observatory from  
29th July to 4th August 1883.

Month	Date,	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometre at 32 Fahr.	TEMPERATURE				HYGROMETRY				WIND			Miles recorded	Rain.	WEATHER.
					Mean	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point	Humidity.	Prevailing direction					
1883		⊕	I. che.	I. che.	⊕	⊕	⊕	⊕	⊕	Inches	⊕	%				Inches		
July	29th	149.3	5	29.512	83.0	87.3	8.8	78.5	79.2	0.961	77.7	84	SW and calm	..	39	0.50	Chiefly cloudy, o, g, p.	
"	30th	147.8	3	500	83.4	88.0	8.8	79.2	80.7	1.011	79.6	88	SW	..	170	0.47	Cloudy, o, g, p, t, lr, <	
"	31st	118.5	Nil	467	81.2	85.1	6.4	78.7	75.1	0.976	78.5	91	S by W and SW	..	192	1.0	Cloudy, o, g, d, p, lr.	
Aug.	1st	108.5	..	455	78.8	81.8	6.6	75.2	76.9	0.903	76.1	91	SW	..	235	1.71	Cloudy, o, g, d, p.	
"	2nd	144.6	6	500	81.6	86.1	10.4	75.7	78.0	0.913	76.5	85	SW by S and SSW	180	0.09	Partially cloudy, o, g, d.		
"	3rd	151.0	6	520	83.5	87.4	8.2	79.2	79.9	0.95	78.5	85	SW and SSW	..	134	0.10	Chiefly cloudy, o, d, p.	
"	4th	152.2	9	526	85.0	88.4	7.2	81.2	81.4	1.026	80.0	85	SW and SSW	..	164	Nil	Partially cloudy.	

The mean pressure of the seven days	... Inches.	29.497
The average pressure of the corresponding period for 24 years, S. G. Office	... Inches.	29.573
The total number of hours of bright sunshine of the seven days	... Hours.	29
The mean temperature of the seven days	... °F.	82.4
The average temperature of the corresponding period for 24 years, S. G. Office	... °F.	82.9
The extreme variation of temperature during the seven days	... °F.	13.2
The maximum temperature during the seven days	... °F.	88.4
The highest velocity of the wind in one hour during the seven days	... Miles. lbs.	18
The highest pressure of the wind on one square foot during the seven days	... Not measurable. %	87
The mean relative humidity during the seven days	... %	86
The average relative humidity of the corresponding period for 24 years, S. G. Office	.. %	86
The total fall of rain from 29th July to 4th August 1883	... Inches.	4.77
The average fall of the corresponding period for 24 years, S. G. Office	... Inches.	3.70
The total fall from 1st January to 4th August 1883	... Inches.	36.08
The average fall of the corresponding period for 24 years, S. G. Office	... Inches.	36.76

The mean pressure, temperature &c. are deducted from the traces of the Barograph and Thermograph, and from observations made at 6h, 10h, 16h, and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are varified and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard Newman's No 86 formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The direction of the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

o overcast, p passing temporary showers, t thunder, d drizzling rain, lr lightning reflection, < lighting, g gloomy.

ALEXANDER PEDLER,

METEOROLOGICAL OFFICE, INDIA,  
The 6th August 1883.  
For Meteorological Reporter to the Government of India.

**Results of the Thermometrical Observations taken at the Meteorological Office,  
Chowringhee, from 29th July to 4th August 1883.**

MONTH.	Date.	TEMPERATURE.				HYGROMETRY.				Rain.
		Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	
1883.		°	°	°	°	°	Inches.	°	%	Inches.
July	29th ..	82·4	87·3	8·2	79·1	79·0	.946	77·6	85	0·66
"	30th ..	83·4	88·3	8·3	80·0	81·0	1·027	80·0	89	0·79
"	31st ..	80·2	87·6	8·8	78·8	79·1	.978	78·6	96	2·44
August	1st ..	76·5	82·8	7·8	75·0	76·0	.885	75·6	95	1·53
"	2nd ..	80·4	87·4	11·4	76·0	78·1	.920	76·7	86	0·18
"	3rd ..	83·9	88·8	9·0	79·8	80·0	.968	78·3	81	Nil.
"	4th ..	84·8	89·8	8·0	81·8	81·1	1·005	79·4	82	,

°  
The mean temperature of the seven days ... ... ... 81·7  
The extreme variation of temperature during the seven days ... ... ... 14·8  
The maximum temperature during the seven days ... ... ... 89·8

%  
The mean relative humidity during the seven days ... ... ... 88  
Inches

The total fall of rain from 29th July to 4th August 1883 .. ... 5·60

The mean temperature and humidity are obtained by applying to the mean of the 10h, 16h, and minimum readings a correction dependent on the range, and derived from the hourly observations at the Surveyor-General's Office, Chowringhee, in past years.

METEOROLOGICAL OFFICE, INDIA,  
The 6th August 1883.

ALEXANDER PEDLER,  
For Meteorological Reporter to the Govt. of India.

## PUBLIC WORKS DEPARTMENT, IRRIGATION BRANCH, BENGAL.

*Statements showing the total amount of traffic and tolls on the Circular and Eastern Canals and Nuddea Rivers for the month of April 1883.*

(CIRCULAR CANAL.)

Number of boats.	NATURE OF CARGO.	APPROXIMATE.		TONNAGE OF BOATS.		Tollage. Rs. A. P.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.	
LOCAL TRAFFIC (PRIVATE).						
15	Limestone	22,100	4,400	47,625	1,700	416 11 6
19	Earthenware	2,100	450	4,600	164	23 4 0
72	Lime	62,600	50,400	1,34,725	4,811	1,178 13 6
648	Firewood	2,16,000	72,000	4,42,025	15,786	3,315 3 0
9	Brass	500	10,000	1,150	41	10 1 0
230	Jute	1,26,500	2,53,000	2,67,750	9,560	2,342 13 0
20	Mats	3,400	6,200	7,575	270	56 14 6
8	Paddy	2,000	2,000	4,225	158	36 15 6
883	Rice	3,33,500	8,33,750	7,01,425	25,050	6,137 7 6
1	Wheat	500	1,250	975	34	8 8 6
98	Other cereals	19,700	29,500	54,500	1,946	476 14 0
24	Linseed	5,200	15,600	10,050	358	87 15 0
20	Oil-cake	5,500	6,900	11,975	427	104 12 6
46	Fruits	1,500	3,000	3,875	138	33 14 6
70	Vegetables	5,000	10,500	10,550	376	92 6 0
6	Tobacco	1,575	9,600	4,700	167	41 2 0
50	Spices	7,200	21,600	14,900	532	130 6 0
2	Turmeric	100	300	400	14	3 8 0
1	Cocoanut	100	50	200	7	1 12 0
43	Grass for cattle	15,000	7,500	38,475	1,373	336 10 6
24	Straw	4,200	2,100	9,325	333	81 9 6
87	Betelnuts	22,000	1,76,000	46,425	1,657	406 3 6
54	Sugar, unrefined	8,200	65,600	18,450	658	161 7 0
44	Jaggery	11,400	19,500	25,000	892	217 14 0
2	Cattle	300	300	650	23	5 11 0
4	Hides	100	2,000	400	14	3 8 0
12	Bones	2,000	1,450	4,100	145	34 2 0
15	Dry fish	500	2,000	1,575	56	13 12 6
242	Coal	1,80,000	40,000	2,97,775	10,635	1,852 10 6
6	Ghooting	3,000	1,250	5,000	179	18 12 0
8	Sand	4,000	1,000	6,375	228	46 2 6
7	Iron	2,500	500	4,050	145	35 7 0
11	Mustard-seed	2,900	8,000	5,875	210	51 6 6
1	Mustard oil	50	550	100	3	0 6 0
3	Other oils	500	2,500	1,050	37	9 3 0
193	Salt	70,500	22,000	1,52,625	5,451	1,239 15 6
2,978	Total	11,42,225	16,82,750	23,40,475	83,578	19,014 3 0
2,121	Total of same month last year.	7,50,926	15,94,191	14,55,675	51,988	12,244 3 6
MISCELLANEOUS.						
1,796	Shells, fish, planks, tamarind, rags, goai-patta, onion, betel leaves, wooden-pipe, bablawood, bamboos, cane, butter and bran, passenger, empty, tiles, and planks, &c.	1,46,600	2,03,000	6,10,550	21,805	3,798 11 0
1,144	Boats under 25 maunds	.....	.....	.....	.....	286 0 0
.....	Demurrage	.....	.....	.....	.....	236 0 9
2,940	Total	1,46,600	2,03,000	6,10,550	21,805	4,320 11 9
2,869	Total of same month last year.	42,665	84,575	1,86,350	6,655	1,744 10 6
5,918	Grand total	12,88,825	18,85,750	29,51,025	1,05,383	23,334 14 9
4,990	Grand total of same month last year.	7,93,591	16,78,766	16,42,025	58,643	13,988 14 0

MEMORANDUM.			
Unrecovered balance on the 1st of the month	...	...	...
Amount of tollage for the month...	...	...	...
		Total	24,834 13 6
Amount credited in the accounts for the month	...	...	23,983 3 6
		Balance at the end of the month	851 10 0

## TOLLY'S NULLAH.

Number of boats.	NATURE OF CARGO.	APPROXIMATE.		TONNAGE OF BOATS.		Tollage.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.	
LOCAL TRAFFIC (PRIVATE).						
172	Firewood	55,500	13,875	1,05,225	3,758	789 3 0
3	Brass	130	1,030	275	10	2 7 6
5	Cotton	700	2,800	2,275	81	19 14 6
16	Jute	2,000	6,900	3,925	139	25 4 6
4	Mats	400	125	750	26	6 9 0
256	Paddy	38,710	29,210	79,700	2,846	688 2 0
1,274	Rice	1,55,683	3,28,100	2,79,100	9,967	2,224 11 6
28	Other cereals	7,006	890	13,625	486	119 4 0
79	Mustard-seed	18,210	38,375	42,250	1,223	215 15 0
17	Tobacco	2,468	5,150	5,825	207	22 14 6
4	Spiees	135	1,050	275	10	2 8 0
8	Grass for cattle	700	70	1,225	43	10 11 6
12	Do. for thatching	4,000	300	7,950	284	69 9 0
165	Straw	14,185	5,200	32,375	1,155	211 2 0
15	Betelnuts	6,016	30,150	11,750	420	102 13 6
14	Sugar, unrefined	936	8,760	1,725	61	15 6 0
141	Jaggery	19,725	58,750	39,875	1,423	282 10 6
2	Cattle	75	400	150	5	1 5 0
79	Coal	30,670	15,016	29,975	1,070	258 1 6
56	Earthenware	3,025	860	8,300	260	33 3 6
5	Lime	275	275	825	29	8 5 0
7	Mustard oil	123	1,350	175	6	1 12 0
3	Turmeric	70	300	75	3	0 12 0
12	Cocoanut	180	75	325	11	3 3 0
104	Vegetables	11,260	22,020	22,725	812	122 12 6
123	Salt	17,8 8	51,900	69,300	2,474	488 4 6
56	Roadstone	29,010	550	55,550	1,983	306 3 0
99	Bricks	26,425	50	47,900	1,782	219 1 0
13	Tiles	3,175	40	4,800	171	16 8 0
12	Sand	5,250	500	11,600	414	43 5 0
2	Timber	95	250	200	17	0 13 0
1	Iron	300	690	625	9	5 7 6
1	Piece-goods (European)	10.	3,000	275	9	2 6 6
6	Gram	890	1,600	5,500	196	20 10 0
2	Other oils	200	2,000	400	18	3 8 0
16	Fruits	1,990	1,990	2,725	97	16 4 6
2,812	Total	4,57,345	6,33,511	8,89,550	31,505	6,355 15 6
3,326	Total of same month last year.	5,93,862	7,39,548	11,98,075	42,682	9,040 14 6
MISCELLANEOUS.						
1,637	Empty, passenger, gol-patta, shell, planks, fishes, tamarind, fowls, boxes, cement, stone-ware, chirah, &c., fish, tile, brick-dust.	52,025	95,200	5,17,225	18,471	2,950 1 6
546	Boats under 25 maunds	.....	.....	.....	.....	136 8 0
...	Demurrage	.....	.....	.....	....	76 13 6
2,183	Total	52,025	95,200	5,17,225	18,471	3,163 7 0
3,295	Total of same month last year.	42,675	67,360	8,11,750	28,990	4,698 5 9
4,995	Grand total	5,09,370	7,28,711	14,06,775	49,976	9,519 6 6
6,621	Grand total of same month last year.	6,36,537	8,06,908	20,09,825	71,672	13,739 4 3

## MEMORANDUM.

Unrecovered balance on the 1st of the month	...	...	Rs. A. P.
Amount of tollage for the month	...	...	262 1 3
			9,519 6 6
		Tota	9,781 7 9
Amount credited in the accounts for the month	...	...	9,657 9 9
		Balance at the end of the month	123 14 0

## NUDDEA RIVERS.

(I).—*Jellinghee River.*

Number of boats.	NATURE OF CARGO.	APPROXIMATE.		TONNAGE OF BOATS.		Tollage. Rs. A. P.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.	
LOCAL TRAFFIC (PRIVATE).						
13	Coal	... 4,250	Rs. 2,125	8,350	298	41 12 0
3	Lime	... 2,275	2,843	4,525	161	22 10 0
4	Brass	... 200	8,000	475	16	4 12 0
4	Gunny (Indian)	... 800	8,000	1,600	57	16 0 0
84	Jute	... 22,300	44,600	42,200	1,507	422 0 0
46	Paddy	... 9,100	9,100	17,875	638	134 1 0
59	Rice	... 4,400	8,800	8,350	298	62 10 0
159	Wheat	... 46,200	92,400	91,475	3,266	686 1 0
15	Gram	... 4,450	6,675	8,750	312	65 10 0
31	Other cereals	... 7,575	15,150	14,925	533	111 15 0
2	Linseed	... 750	2,250	1,575	56	11 13 0
3	Mustard-seed	... 575	2,875	1,300	46	9 12 0
5	Other oils	... 325	2,600	700	25	7 0 0
2	Oil-cake	... 150	150	275	9	2 12 0
2	Tobacco	... 250	750	550	19	5 8 0
1	Grass for cattle	... 250	62	475	16	2 6 0
176	Salt	... 29,500	88,500	59,400	2,121	594 0 0
1	Hides	... 200	2,000	450	16	4 8 0
1	Bones	... 150	37	275	9	1 6 0
22	Ghee	... 2,575	77,250	6,200	221	62 0 0
381	Empty	... .....	... .....	5,20,225	18,579	650 4 6
91	Miscellaneous	... 14,150	1,13,200	28,075	1,002	280 12 0
1,105	Total	... 1,50,425	4,87,367	8,18,025	29,205	3,199 8 6
1,031	Total of same month last year.	... 1,27,370	5,23,295	6,39,800	22,840	2,753 14 0
MISCELLANEOUS.						
548	Passenger boats	... .....	.....	.....	.....	157 8 0
.....	Raft of timber and golebutty.	... .....	.....	.....	.....	0 3 0
548	Total	... .....	.....	.....	.....	157 11 0
492	Total of same month last year.	... .....	.....	.....	.....	257 8 6
1,653	Grand total	... 1,50,425	4,87,367	8,18,025	29,205	3,357 3 6
1,523	Grand total of same month last year.	... 1,27,370	5,23,295	6,39,800	22,840	3,011 6 6

## MEMORANDUM.

		Rs. A. P.
Unrecovered balance on the 1st of the month	...	.....
Amount of tollage for the month	...	3,357 3 6
Total	...	3,357 3 6
Amount credited in the accounts for the month	...	3,357 3 6
Balance at the end of the month	...	.....

## NUDDEA RIVERS.

(II). — *Matabhanga River.*

Number of boats.	NATURE OF CARGO.	APPROXIMATE.		TONNAGE OF BOATS.		Tollage. Rs. A. P.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.	
	LOCAL TRAFFIC (PRIVATE).	Mds.	Rs.			
6	Coal	740	185	1,700	62	8 8 0
3	Limestone	1,200	1,200	2,400	88	6 0 0
3	Earthenware	20	20	200	7	0 4 0
5	Sand	1,050	262	1,975	73	2 7 6
4	Lime	1,855	1,855	2,650	98	13 4 0
7	Firewood	1,617	404	4,325	160	21 10 0
1	Iron	68	272	225	8	2 4 0
1	Gunny (Indian)	50	250	325	12	3 4 0
15	Jute	2,257	4,514	7,900	292	79 0 0
2	Mats	250	650	500	18	5 0 0
88	Paddy	16,857	16,357	35,775	1,325	268 5 0
3	Rice	148	333	300	11	2 4 0
52	Wheat	15,609	39,022	43,025	1,593	322 11 0
24	Gram	12,968	21,073	14,450	535	108 6 0
48	Other cereals	21,702	37,978	24,150	894	181 2 0
17	Linseed	6,041	20,388	12,525	463	93 15 0
1	Mustard-seed	330	1,402	350	12	2 10 0
2	Other oils	101	1,313	1,150	42	11 8 0
18	Oil-cake	1,161	1,161	3,850	142	38 8 0
10	Vegetables	390	390	1,100	40	8 4 0
5	Tobacco	72	288	1,400	51	14 0 0
2	Spices	23	184	1,600	59	16 0 0
12	Turmeric	1,570	5,887	4,550	168	45 8 0
1	Cocoanut	3	3	50	1	0 8 0
2	Betelnuts	89	623	275	10	2 12 0
24	Jaggery	1,547	4,641	4,850	179	48 8 0
23	Salt	4,825	14,475	9,025	334	90 4 0
15	Miscellaneous	1,578	15,780	3,150	116	31 8 0
208	Empty	....	....	....	....	195 5 0
1	Dry fish	20	80	50	1	0 8 0
603	Total	93,641	1,90,990	1,83,825	6,794	1,623 15 6
323	Total of same month last year.	36,734	54,341	1,13,925	4,207	626 15 0
	MISCELLANEOUS.					
1	Raft of timber { D. 2 } G. 1 }	50	60	....	....	0 15 0
135	Passenger	....	....	....	....	38 8 0
136	Total	50	60	....	....	39 7 0
265	Total of same month last year.	....	425	....	....	30 0 0
789	Grand total	93,691	1,91,050	1,83,825	6,794	1,663 6 6
588	Grand total of same month last year.	36,734	54,766	1,13,925	4,207	656 15 0

## MEMORANDUM.

Unrecovered balance on the 1st of the month	Rs. A. P.
Amount of tollage for the month	... 83 3 0
	... 1,663 6 6
Total	... 1,746 9 6
Amount credited in the accounts for the month	... 1,727 8 9
Balance at the end of the month	... 19 0 9

## NUDDEA RIVERS.

(III).—*Bagiruthee River.*

Number of boats.	NATURE OF CARGO.	APPROXIMATE.		TONNAGE OF BOATS.		Tollage. Rs. A. P.
		Weight of cargo. Mds.	Value of cargo. Rs.	Maunds.	Tons.	
<b>LOCAL TRAFFIC (PRIVATE).</b>						
4	Coal	675	337	1,200	42	6 0 0
2	Earthenware	100	25	250	8	0 5 0
4	Brass	450	18,000	1,350	48	13 8 0
2	Paddy	375	375	850	30	6 6 0
2	Rice	100	200	200	7	1 8 0
19	Wheat	9,600	19,200	18,400	657	138 0 0
4	Gram	1,775	2,662	3,500	125	26 4 0
9	Other cereals	1,725	3,450	3,375	120	25 5 0
7	Linseed	2,275	6,825	4,450	158	33 6 0
1	Mustard-seed	50	250	125	4	0 15 0
1	Jaggery	30	90	100	3	1 0 0
11	Salt	2,500	7,500	4,900	175	49 0 0
2	Hides	200	2,000	425	15	4 4 0
2	Ghee	125	3,750	275	9	2 12 0
30	Empty	.....	.....	24,775	884	30 15 6
10	Miscellaneous	750	6,000	1,575	56	15 12 0
110	Total ...	20,730	70,664	65,750	2,341	355 4 6
184	Total of same month last year.	30,545	1,17,084	1,04,200	3,714	541 10 0
<b>MISCELLANEOUS.</b>						
308	Passenger boats	.....	.....	.....	.....	111 8 0
308	Total ...	.....	.....	.....	.....	111 8 0
170	Total of same month last year.	.....	.....	.....	.....	58 0 0
418	Grand total ...	20,730	70,664	65,750	2,341	466 12 6
354	Grand total of same month last year.	30,545	1,17,084	1,04,200	3,714	599 10 0

## MEMORANDUM.

	Rs. A. P.
Unrecovered balance on the 1st of the month ...	... .....
Amount of tollage for the month ...	... 466 12 6
	-----
Total ...	... 466 12 6
Amount credited in the accounts for the month ...	... 466 12 6
	-----
Balance at the end of the month ...	... .....

## NUDDEA RIVERS.

(IV).—Jungypore River.

Number of boats.	NATURE OF CARGO.	APPROXIMATE.		TONNAGE OF BOATS.		Tollage. Rs. A. P.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.	
	LOCAL TRAFFIC (PRIVATE).	Mds.	Rs.			
5	Paddy	150	.....	475	.....	3 9 0
4	Pulses and gram	120	.....	225	.....	1 11 0
9	Total	270	.....	700	.....	5 4 0
	MISCELLANEOUS.					
32	Passenger boats, 38 oars	.....	.....	.....	.....	9 8 0
3	Empty	.....	.....	1,625	.....	2 0 6
5	Miscellaneous (mixed cargo).	81	.....	225	.....	2 4 0
40	Total	81	.....	1,850	.....	13 12 6
60	Total of same month last year.	.....	.....	.....	.....	15 8 0
49	Grand total	351	.....	2,550	.....	19 0 6
70	Grand total of same month last year.	.....	.....	.....	.....	15 8 0

## MEMORANDUM.

	Rs. A. P.
Unrecovered balance on the 1st of the month	... .....
Amount of tollage for the month	... ... 19 0 6
	<hr/>
Total	... 19 0 6
Amount credited in the accounts for the month	... ... 19 0 6
	<hr/>
Balance at the end of the month	... .....

## ABSTRACT.

	TRAFFIC, 1883-84.		TRAFFIC, 1882-83.	
	During the month.	To end of the month.	During the corresponding month.	To end of the corresponding month.
CIRCULAR AND EASTERN CANALS.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Circular canal	23,334 14 9	23,334 14 9	13,988 14 0	13,988 14 0
Tolly's nullah	9,519 6 6	9,519 6 6	13,739 4 3	13,739 4 3
Total	32,854 5 3	32,854 5 3	27,728 2 3	27,728 2 3
NUDDEA RIVERS.				
I.—Jellinghee river	8,357 3 6	3,357 3 6	3,011 6 6	3,011 6 6
II.—Matabhanga river	1,663 6 6	1,663 6 6	656 15 0	656 15 0
III.—Bhagiruthee river	466 12 6	466 12 6	599 10 0	599 10 0
IV.—Jungypore river	19 0 6	19 0 6	15 8 0	15 8 0
Total	5,506 7 0	5,506 7 0	4,283 7 6	4,283 7 6
GRAND TOTAL	38,360 12 3	38,360 12 3	32,011 9 9	32,011 9 9

CALCUTTA,  
The 2nd August 1883.

C. W. ODLING,  
Under-Secretary to the Govt. of Bengal,  
Public Works Department.

## Weekly Return of Traffic Receipts on Indian Railways.

## EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 28th July 1883, on 1,509 miles open.

	COACHING TRAFFIC.		MERCHANTS AND MINERAL TRAFFIC.		Other earnings (estimated.)	Total earnings.	TOTAL TRAIN-MILES RUN.		
	Number of Passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchan- disc.	Total.
Total traffic for the week ...	182,245	1,89,878 7 0	19,60,290 0	5,87,084 14 9	17,813 5 8	7,94,776 11 5	62,224 1	111,100 1	173,334
Or per mile of railway ...	.....	125 13 3	.....	389 0 11	11 12 11	536 11 1	.....	.....	.....
For previous 3 weeks of half-year ...	621,421	6,34,417 9 0	73,53,405 10	21,72,960 15 9	57,850 10 4	28,55,238 3 1	180,012	457,832 1	646,844 1
Total for 4 weeks ...	807,666	8,14,296 0 0	93,22,695 10	27,60,045 14 6	75,673 0 0	36,50,014 14 6	251,236	508,912	820,178 1
<b>COMPARISON.</b>									
Total for corresponding week of previous year ...	160,950 1	1,71,786 10 5	21,81,990 10	6,29,867 4 11	17,884 6 0	8,19,538 5 4	55,476	124,784	180,230
Per mile of railway corresponding week of previous year ...	.....	114 0 2	.....	418 0 6	11 13 11	543 14 7	.....	.....	.....
Total to corresponding date of previous year ...	702,974 1	7,83,153 15 11	93,21,130 0	25,79,657 12 8	63,429 13 5	34,26,241 10 0	212,418	506,099	718,517

## EASTERN BENGAL RAILWAY.

Approximate Return of Traffic for last 14 days of June 1883, on 206 1/4 miles open.

	Rs. A. P.	Mds. s.	Rs. A. P.	Mds. s.	Rs. A. P.	Mds. s.	Rs. A. P.	Mds. s.	Rs. A. P.
Total traffic for the week ...	1,370	685 0 0	23,791 0	7,47 1 0 0	10,000 0 0	18,159 0 0	.....	.....	.....
Or per mile of railway ...	7	3 5 0	115 3	36 2 5	48 5 10	87 13 3	.....	.....	.....
For previous week of half-year ...	1,464,134	9,12,840 0 0	76,98,056 0	15,89,900 0 0	43,409 0 0	25,46,140 0 0	183,451	225,363 1	408,814 2
Total for half-year ...	1,465,504	9,13,525 0 0	77,21,847 0	15,97,374 0 0	53,409 0 0	25,61,308 0 0	183,451	225,363 1	408,814 2
<b>COMPARISON.</b>									
Total for corresponding week of previous year ...	.....	11 0 0	6,320 0	2,817 0 0	12,761 0 0	15,539 0 0	.....	.....	.....
Per mile of railway corresponding week of previous year ...	.....	0 1 0	37 0	16 6 5	74 4 10	90 12 3	.....	.....	.....
Total to corresponding date of previous year ...	1,215,677	7,93,883 0 0	65,95,870 0	11,19,212 0 0	43,120 0 0	19,56,215 0 0	154,430	179,558 1	334,315 1

## EASTERN BENGAL RAILWAY.

Approximate Return of Traffic for week ended 21st July 1883, on 206 1/4 miles open.

	Rs. A. P.	Mds. s.	Rs. A. P.	Mds. s.	Rs. A. P.	Mds. s.	Rs. A. P.	Mds. s.	Rs. A. P.
Total traffic for the week ...	46,800	26,163 0 0	2,33,093 0	43,611 0 0	120 0 0	60,894 0 0	7,800 1	6,551 1	14,352
Or per mile of railway ...	226	126 8 8	1,127 17	210 15 0	0 9 4	338 1 0	.....	.....	.....
For previous 2 weeks of half-year ...	120,931	62,412 0 0	4,12,887 0	80,542 0 0	1,669 0 0	1,44,623 0 0	15,720 1	12,939 1	28,660 1
Total for 3 weeks ...	167,731	88,575 0 0	6,45,980 0	1,24,153 0 0	1,780 0 0	2,14,517 0 0	23,520 1	19,491 1	43,012 1
<b>COMPARISON.</b>									
Total for corresponding week of previous year ...	37,645	23,039 0 0	2,40,650 0	50,695 0 0	71 0 0	74,705 0 0	5,913	7,196 1	13,019 1
Per mile of railway corresponding week of previous year ...	219	139 6 1	1,401 7	295 2 8	0 6 8	434 15 5	.....	.....	.....
Total to corresponding date of previous year ...	145,862	83,591 0 0	7,11,840 0	1,26,571 0 0	530 0 0	2,10,701 0 0	18,883 1	22,396 1	41,280

Includes Rs. 157 on account of Revenue stores.

## EASTERN BENGAL RAILWAY.

Approximate Return of Traffic for week ended 28th July 1883, on 206 1/4 miles open.

	Rs. A. P.	Mds. s.	Rs. A. P.	Mds. s.	Rs. A. P.	Mds. s.	Rs. A. P.	Mds. s.	Rs. A. P.
Total traffic for the week ...	50,630	27,927 0 0	2,24,200 0	41,260 0 0	106 0 0	69,293 0 0	7,862 1	6,330	14,251 1
Or per mile of railway ...	243	135 1 3	1,084 16	129 9 0	0 8 2	335 2 5	.....	.....	.....
For previous three weeks of half-year ...	187,731	88,575 0 0	6,45,980 0	1,24,153 0 0	1,789 0 0	2,14,517 0 0	23,520 1	19,491 1	43,012 1
Total for four weeks ...	218,361	116,502 0 0	8,70,180 0	1,65,413 0 0	1,895 0 0	2,85,810 0 0	31,589 1	25,880 1	57,233 1
<b>COMPARISON.</b>									
Total for corresponding week of previous year ...	37,157	22,796 0 0	3,03,260 0	73,344 0 0	113 0 0	96,253 0 0	5,913	8,578 1	14,491 1
Per mile of railway corresponding week of previous year ...	216	132 0 8	1,765 29	427 0 7	0 10 6	560 6 9	.....	.....	.....
Total to corresponding date of previous year ...	183,019	1,06,387 0 0	10,15,106 0	1,99,015 0 0	632 0 0	3,06,954 0 0	24,793 1	30,975	55,771 1

Includes Rs. 219 on account of Revenue stores.

## EASTERN BENGAL RAILWAY COMPANY.

Bengal Central Railway Approximate Return of Traffic for week ended 21st July 1883. Miles open Total. { Ranaghat Section 20 1/4 } 35 { Dum-Dum 14 1/4 }

	Rs. A. P.	Mds. s.	Rs. A. P.	Mds. s.	Rs. A. P.	Mds. s.	Rs. A. P.	Mds. s.	Rs. A. P.
Total traffic for the week—									
Ranaghat Section ...	2,199	583 0 0	22,015 0	274 0 0	10 0 0	872 0 0	270	341	581
Dum-Dum do. ....	6,206	748 0 0	261 0	69 0 0	8 0 0	823 0 0	563 1	65 1	627
Or per mile of railway—									
Ranaghat Section ...	106	28 5 5	1,060 39	13 3 3	0 7 9	42 0 5	.....	.....	.....
Dum-Dum do. ....	436	52 7 10	18 13	4 13 6	0 9 0	57 14 4	.....	.....	.....
For previous 2 weeks of half-year—									
Ranaghat Section ...	5,335	1,472 0 0	30,490 0	336 0 0	22 0 0	1,850 0 0	55 1 1	60 1 1	1,183
Dum-Dum do. ....	14,812	1,712 0 0	9,034 0	104 0 0	17 0 0	1,833 0 0	1,133 1	120	1,233 1
Total for 3 weeks—									
Ranaghat Section ...	7,534	2,060 0 0	52,505 0	630 0 0	32 0 0	2,722 0 0	823 1	919 1	7,743
Dum-Dum do. ....	21,018	2,460 0 0	9,315 0	173 0 0	25 0 0	2,658 0 0	1,696 1	183 1	1,880 1
Total of both Sections ...	28,552	4,520 0 0	61,820 0	803 0 0	67 0 0	5,350 0 0	2,520 1	1,102 1	5,623 1

EASTERN BENGAL RAILWAY.  
*Bengal Central Railway Approximate Return of Traffic for week ended 28th July 1883.*

	COACHING TRAFFIC.		MERCHANTISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TOTAL TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
<b>Total traffic for the week—</b>									
Ranaghat Section .....	2,448	703 0 0	11,565 0	146 0 0	7 0 0	856 0 6	245	236	581
Dum-Dum .....	6,021	832 0 0	56 0	18 0 0	6 0 0	856 0 0	6052	214	627
<b>Or per mile of railway—</b>									
Ranaghat Section .....	155	44 10 2	734 11	9 4 4	0 7 1	54 5 7	.....	.....	.....
Dum-Dum .....	423	58 6 2	3 37	1 4 3	0 6 9	60 1 2	.....	.....	.....
<b>For previous three weeks of half-year—</b>									
Ranaghat Section .....	7,534	2,060 0 0	52,505 0	630 0 0	32 0 0	2,722 0 0	8234	9194	1,743
Dum-Dum .....	21,018	2,460 0 0	9,315 0	173 0 0	25 0 0	2,653 0 0	1,6962	1834	1,8804
<b>Total for four weeks—</b>									
Ranaghat Section .....	9,982	2,763 0 0	64,070 0	776 0 0	39 0 0	5,578 0 0	1,1682	1,1554	2,324
Dum-Dum .....	27,039	3,292 0 0	9,371 0	191 0 0	31 0 0	3,514 0 0	2,3024	2044	2,5074
<b>Total of both Sections</b> .....	<b>37,021</b>	<b>6,055 0 0</b>	<b>73,441 0</b>	<b>967 0 0</b>	<b>70 0 0</b>	<b>7,092 0 0</b>	<b>3,4714</b>	<b>1,360</b>	<b>4,8314</b>

PATNA AND GYA STATE RAILWAY.  
*Approximate Return of Traffic for Week ended 7th July 1883, on 57½ miles open.*

	Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week .....	9,023	4,407 12 0	26,434 30	1,904 3 0	81 12 0	6,393 11 0	1,663	731	2,394
Or per mile of railway .....	158	77 0 11	402 10	33 4 8	1 6 10	111 12 5	.....	.....	.....
For previous weeks of half-year .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
<b>Total for 1 week</b> .....	<b>9,023</b>	<b>4,407 12 0</b>	<b>26,434 30</b>	<b>1,904 3 0</b>	<b>81 12 0</b>	<b>6,393 11 0</b>	<b>1,663</b>	<b>731</b>	<b>2,394</b>

## COMPARISON.

Total for corresponding first eight days of previous year .....	* 9,230	† 4,905 4 3	* 32,028 0	† 3,125 12 0	.....	† 8,031 0 3	* 1,699	* 1,747	* 3,446
Per mile of railway corresponding period of previous year .....	162	86 0 11	562 0	54 13 5	.....	140 14 4	.....	.....	.....
Total to corresponding date of previous year .....	9,230	4,905 4 3	32,028 0	3,125 12 0	.....	8,031 0 3	1,699	1,747	3,446

\* Represents approximate figures, as audited figures are not obtainable.

† Represents audited figures of the corresponding period of previous year.



# SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, AUGUST 15, 1883.

## OFFICIAL PAPERS.

*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.*

## CONTENTS.

Page.	Page.		
RESOLUTION on the Report of the Chemical Examiner for 1882-83 .....	1211	RESULTS of the Meteorological Observations taken at the Alipore Observatory from 5th to 11th August 1883 .....	1246
Report on the working of the Jute Warehouse Act during the year 1882-83 .....	1215	Abstract of the results of Meteorological Observations taken at the Alipore Observatory in the month of July 1883 .....	1247
Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal as reported to Government during the week ending the 11th August 1883 .....	1220	Results of the Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 5th to 11th August 1883 .....	1248
Meteorological Report of the Province of Bengal for the month of July 1883 .....	1229	Abstract of the results of the Thermometric Observations taken at the Meteorological Office, Chowringhee, in the month of July 1883 .....	1249
Table of Rainfall recorded at Stations in Bengal in July 1883 .....	1224	Statements showing the total amount of Traffic and Tolls on the Circular and Eastern Canals and Nuddea Rivers for the month of May 1883 .....	1250
Meteorological Report of the Province of Bengal for the week ending 10th August 1883 .....	1232	Areas leased for Irrigation up to the end of June 1883 .....	1255
Statement of Rainfall in Bengal for the week ending Friday (6 p.m.), the 10th August 1883 .....	1234	Report on Traffic of the East Indian Railway during five weeks ending 30th June 1883 .....	1256
Statement showing the Results of the Registration of Deaths in the districts in Bengal for the month of June 1883 .....	1241	Report of Fluctuation of Traffic on the Eastern Bengal Railway for the month of May 1883 .....	1260
Statement showing the results of the Registration of Births and Deaths in the First Class Municipalities in Bengal during the week ending 28th July 1883 .....	1244	Weekly Return of Traffic Receipts on Indian Railways	1261

## RESOLUTION ON THE REPORT OF THE CHEMICAL EXAMINER FOR 1882-83.

## MUNICIPAL DEPARTMENT—MEDICAL.

*Calcutta, the 7th August 1883.*

## RESOLUTION.

## READ—

A letter from the Surgeon-General, Bengal, No. 4122, dated the 20th June 1883, forwarding the Report of the Chemical Examiner for 1882-83.

## Read also—

The Report for the year 1881-82, and the Government Resolution recorded on it.

The number of analyses performed in the Laboratory during the year is the largest on record. It was 2,133 against 1,900 in 1881-82, which was,

again, a larger number than was shown in any previous year. The following table shows the work done in each of the last three years:—

		1880-81.	1881-82.	1882-83.
Human viscera tested for poison	...	270	225	210
Animal ditto ditto	...	75	83	105
Substances suspected to be, or to contain, poison	...	572	652	663
Articles tested for blood stains	...	140	173	186
Ditto for seminal stains	...	32	24	28
Inflammable oils	...	33	43	162
Lime-juice	...	15	18	18
Potable water	...	11	54	77
Opium, confiscated	...	29	112	29
Ditto, quantitative, for Board of Revenue	...	4	4	8
Salt	...	2	2	2
Spirits for deleterious adulterations	...	11	50	6
Spirit determinations for the Collector of Customs	...	...	...	127

*Articles tested for Purity and Quality.*

		1880-81.	1881-82.	1882-83.
For Small Arms Ammunition Factory, Dum-Dum	...	184	191	312
" Arsenal, Fort William	...	17	16	9
" Medical Store Department	...	3	6	5
" Commissariat ditto	...	10	134	158
Miscellaneous	...	62	113	28
Total	...	1,470	1,900	2,133

The increase in the analytical work is chiefly noticeable under the heads "Animal viscera for poison," "Inflammable oils," "Potable water," "Spirit determinations," and "Articles tested for the Small Arms Ammunition Factory, Dum-Dum;" while a considerable decrease is to be observed under "Confiscated opium," "Spirits for deleterious adulterations," and "Miscellaneous." The medico-legal analyses show an increase of 35 cases compared with the preceding year. The number of "Other cases" also exhibits an increase of 198 above that of 1881-82.

2. The number of specimens of human viscera sent for examination was 210. Altogether 31 examinations were made by the Police Surgeon, Calcutta. Apart from these, 106 of the bodies examined were of females and 70 were of males, while in three cases no sex was recorded. In 33 of the former death was attributed to the administration of drugs for the purpose of causing abortion, but in many cases the records shewed that mechanical rather than medicinal agents had been employed. The percentage of cases in which poison was detected was 46·6 per cent. against 41·3 in the previous year. The improvement is so far satisfactory, but it still shows that in more than 53 per cent. of the cases in which *post mortem* examinations were made, no cause could be assigned for death. The Chemical Examiner has again complained of the meagre character of the *post mortem* reports generally received by him, and of the want of care frequently shown by local officers in the packing of viscera and articles connected with medico-legal cases. An instance is given in which the stomach of a woman was forwarded to the Chemical Examiner for analysis. No information was furnished beyond the bare statement of the hospital assistant of the subdivision that "death was caused from the effects of some irritant poison." Neither the *post mortem* report, nor the description of the mode of packing with copies of label, accompanied the bottle. In another case in which aconite poisoning was suspected, the stomach only was sent, *the contents having been thrown away by the native doctor*, although the preservation of the contents was obviously of the utmost importance. The Surgeon-General is requested to ascertain and report, for the information of Government, the name of the officer concerned. In other cases there was reason to believe that the viscera, after removal, had not been immediately packed and despatched to the Chemical Examiner, but were "retained pending the final results of the police enquiry." Dr. Warden points out that an analysis conducted under these circumstances must lose a great part of its value. Clear instructions have been repeatedly issued regarding the method to be adopted in packing and preparing substances for analysis by the Chemical Examiner. The Lieutenant-Governor takes this opportunity of impressing upon local officers the necessity of strictly conforming to the rules that have been laid down by Government in this behalf, and he trusts that it will not be necessary for him to recur to the subject again.

3. Opium, arsenic, and aconite were, as in previous years, the three most important poisons detected in human viscera. Fifty-six cases were traced to opium, against 54 in the previous year. The cases in which arsenic and aconite were administered numbered 26 and 5, against 20 and 7 respectively. The number of specimens of animal viscera examined during the year was 105 against 83 in 1881-82. Poison was detected in 67 cases against 61 in the preceding year. Of the 67 cases in which poison was detected, 65 cases were traced to arsenic, and two cases were for the first time traced to aconite. Some interesting notes on *sui*-poisoning, or poisoning by means of *kooneh* or *gencut* seeds, pounded and shaped into needles for insertion beneath the skin of animals, have been appended by Dr. Warden to his report. It is observed that in *sui*-poisoning the examination of the external and internal surfaces of the skin is of great importance, as in these cases chemical examination of the stomach and intestines cannot lead to any result. The following table compares the percentages of total cases in which each of the three chief poisons—arsenic, opium and aconite—was found :—

	ARSENIC.			OPIUM.			ACONITE.		
	1880-81.	1881-82.	1882-83.	1880-81.	1881-82.	1882-83.	1880-81.	1881-82.	1882-83.
Human viscera	18.7	21.5	26.5	69.7	58.06	57.1	2.8	7.5	5.1
Suspected substances	55	63.6	45.3	11.9	6.8	8.1	2.3	5.5	5.5
Animal viscera	100	100	97.0	Nil.	Nil.	Nil.	Nil.	Nil.	8.0

4. There was a large increase in the number of samples of inflammable oils examined during the year, 162 samples having been tested against 43 in the previous year. This was due to the arrival of large shipments of kerosine oil, which had to be tested under the Petroleum Act of 1881. A series of elaborate experiments in connection with the testing of petroleum are being made, and will be separately considered by Government. In most of the samples examined during the year, the quality of the imported oils showed a marked improvement. Twenty-two samples flashed at 218° to 107° F., and 81 at 100° to 106° F., and in 59 cases only was a flash obtained at a lower temperature than 100° F.

5. Dr. Warden's remarks on the analyses of potable waters undertaken during the year are very interesting. Seventy-seven samples of potable water were examined against 54 in the previous year. Twenty-seven samples from the Eden Canal were analysed in connection with the proposed water-supply for the Howrah Municipality. The analyses were undertaken at the request of the Public Works Department, with a view to ascertain if the proposed water-supply could be drawn from the Surusuttee river. The results obtained have been unfavourable, and the Lieutenant Governor has negatived the proposal to draw the supply from this source. Twenty-four samples of well and canal water were also examined at the request of the Board of Revenue. "The analyses," Dr. Warden writes, "were required in order to ascertain if there was any real difference between the well and canal water which would account for the preference shown by the ryots of Behar in using well water for irrigation of the poppy. As might have been anticipated, the well waters contained, as a rule, a far larger amount of dissolved mineral matter than the canal water, the average of 12 wells giving 43.7 grains of dissolved solids per gallon, and the 12 samples of canal water 10.8 grains per gallon—a fact quite sufficient to explain the reason of the Behar ryots' preference for well water." Dr. Warden has made some valuable and interesting experiments with water from a patent tube well sunk in his own compound, and has compared the analyses of the well-water and the water from a neighbouring tank. His remarks are well worthy of consideration. He observes—

"In Lower Bengal, I believe that Norton's patent tube wells are little known, and the following experiment with one is therefore worthy of record. With few exceptions, the tank water in Alipore is of indifferent quality. At my request Messrs. Jessop and Co., Phoenix Iron Works, sunk a tube well in my compound. Water was reached at 21 feet from the surface. The pump is calculated to discharge 400 gallons per hour, and the cost of the pump, tubing &c., was between 70 and 80 rupees. The water thus obtained at first was extremely turbid from finely divided sand; but this has diminished as the pump has

been worked, and I have no doubt that ultimately bright water will be obtained. On analysis the following results were yielded, and for comparison I have also included in the table the analysis of water from a tank situated about 200 yards from the pump, the water of which is largely used :—

	Dissolved solids.	Chlorine.	Free ammonia.	Albuminoid ammonia.	Nitrogen as nitrates and nitrites.	HARDNESS, CLARK'S SCALE.			REMARKS.	
						Total.	Temporary.	Permanent.		
Pump water	... ... ..	49.76	.72	.0018	.0098	.0714	28.5	20.5	4	Solid residue white; not the least trace of blackening on ignition.
Tank water	... ... ..	16.16	1.94	.042	.04	.061	7	4	8	Brown; considerable blackening on ignition.

"The point to which I would first draw attention is the purity of the well water. The water is hard, but the hardness is temporary, and 24 oz. of lime per 1,000 gallons would be sufficient to reduce the hardness about 70 per cent. The pump water represents the sub-soil water, in which the chlorine is under one part per 100,000, while in the tank waters the amount is nearly two parts. Again, as regards the 'free' and 'albuminoid ammonia,' the difference is most striking. These facts point most unmistakeably to pollution of the tank water by sewage. Ordinary tanks and wells, as is well known, are liable to numerous sources of pollution, both direct and indirect. Water obtained by means of a tube well cannot be subject to direct contamination. All polluting matter must first filter through a thick stratum of soil before reaching the water. \* \* \* Before excavating tanks or wells, important information might be gained regarding the fitness of the water for potable purposes by sinking a tube well and having the water analysed; and if municipalities invested in a few tube wells and hired them out to persons desirous of sinking wells, &c., large sums of money might be saved, and cases would not occur in which, after a tank or well has been excavated, the water obtained has proved unfit for use owing to the soil being contaminated, with saline matter."

Speaking of the presence of weeds in water for potable purposes Dr. Warden is of opinion that they not only purify water indirectly by supplying oxygen, but they are also valuable as tending to remove excess of saline matter.

6. The Chemical Examiner has complained of the additional work thrown upon his office in analysing samples of drugs and other substances for the manufacturers or inventors, and he proposes to place certain restrictions on the practice. A reference was separately made to Government on this subject by the Surgeon-General, and the Lieutenant-Governor believes that the orders that have been passed will sufficiently meet the difficulty experienced by Dr. Warden.

7. The Lieutenant-Governor's thanks are again due to Dr. Warden for his good work, and to Baboo Tara Prosunno Roy, Additional Chemical Examiner, and Baboo Ram Chunder Dutt, First (late Second) Assistant, for the help afforded by them to the Chemical Examiner.

ORDER.—Ordered that a copy of the Resolution and of the Report be submitted to the Government of India in the Home Department for information.

Ordered also that copies of the Resolution be forwarded to the Surgeon-General, Bengal, for information and guidance, and for communication to the Chemical Examiner.

Ordered further that extract paragraph 2 be forwarded to all Commissioners of Divisions for information and communication to District and Sub-Divisional Officers.

By order of the Lieutenant-Governor of Bengal,

COLMAN MACAULAY,

*Secretary to the Government of Bengal.*

REPORT ON THE WORKING OF THE JUTE WAREHOUSE ACT DURING  
THE YEAR 1882-83.

The following Report is published for general information :—

COLMAN MACAULAY,  
*Secretary to the Govt. of Bengal.*

No. 806M, dated Alipore, the 5th June 1883.

Memo. by—C. C. STEVENS, Esq., Magistrate of the 24-Pergunnahs.

COPY, together with the statements, submitted to the Commissioner of the Presidency Division.

Of the 29 warehouses for the year 1881-82, licenses for seven were not renewed, but in their stead 13 new warehouses were opened during the year 1882-83.

No. 3FB, dated Alipore, the 15th May 1883..

From—R. C. STERNDALE, Esq., Vice-Chairman of the Suburban Municipality,  
To—The Magistrate of the 24-Pergunnahs.

UNDER section 27, Act V (B. C.) of 1879, I have the honour to submit, for transmission to Government, the annual report on the working of the Jute Act during the year 1882-83 in the Suburbs of Calcutta, together with a statement shewing the jute warehouses in the Suburbs, for which licenses were granted.

2. The number of warehouses licensed during the year was 98, and the amount of license fee realized on account of the said warehouses, as per accompanying statement, was Rs. 16,220, which, with the amount of fines, Rs. 95, as shewn in paragraph 4, makes up the sum of Rs. 16,315 shewn in the municipal accounts for the year.

3. The following amounts were charged against the Jute Fund, viz. inspection establishment, Rs. 1,884; contingencies, Rs. 1-9; proportion of executive charges at 10 per cent. on the collection, Rs 1,631-8; amount made over to the Commissioner of Calcutta Police for maintenance of fire-brigade, Rs. 9,538-14 as per bills submitted by him.

4. There were six cases instituted against as many persons before the Criminal Bench for breach of the Jute Act, viz. five under clause 1, section 6, Act V of 1879 (B. C.) for using tiled sheds for storing loose jute in contravention of the conditions of the licenses granted to them, and one under section 12, Act V of 1879 (B. C.), for using a tiled shed building and a plot of land as a jute warehouse without a license from the Municipal Commissioners, and an aggregate sum of Rs. 95 was levied as fines inflicted on the said six persons.

5. A statement shewing in debtor or creditor form the income and expenditure under the Jute Act V of 1879 (B. C.), as called for by paragraph 4 of the Government letter No. 723, dated 20th August 1881, is herewith submitted.

6. Twenty-three fires occurred in the Suburbs during the year under review; a tabular statement shewing the property destroyed by fire and the estimated value thereof as furnished by the Deputy Commissioner of Police is also herewith submitted.

*List of Jute and Cotton Warehouses licensed in the Suburbs of Calcutta during the year 1882-83.*

No.	Name of the owner or occupier of the Warehouse.	Locality of the Warehouse.	Amount of license fee.	Total.
			Rs. A. P.	Rs. A. P.
<i>Hydraulic Presses.</i>				
1	Camberdown Pressing Company, Limited	4 and 6, Rustomjee's Lane, Cossipore	900 0 0	
2	Messrs. S. C. Chunder & Co., Proprietors, Bengal Hydraulic Press.	4, Sugar Works Lane, Cossipore	900 0 0	
3	Hur-cook Das and Dooli Chand	2, Chitpore Ghât Lane, Nawabputty	600 0 0	
4	Ashcroft Pressing Company, Limited (owner Kirtree Chunder Mitter).	10, Nawabputty Street, Chitpore	750 0 0	
5	Messrs. Ernsthausen, Oesterley & Co. (owner Rajkisto Das).	5, Calliprosunno Singha's Street, Chitpore	1,140 0 0	
6	Messrs. Ralli Brothers	8, Sugar Works Lane, Cossipore	1,500 0 0	
7	Ditto ditto (owner Russick Lal Seal)	42A, Cossipore Road	540 0 0	
8	Messrs. Emile Charroi & Co., Agents and Secretaries, Calcutta Hydraulic Press Company, Limited.	6, Calliprosunno Singha's Street, Chitpore	1,052 0 0	
9	George Henderson & Co., Agents, Watson's Patent Press Company, Limited.	1, Galliffe Street, Laugh Bazar	420 0 0	
10	Messrs. Kettlewell, Bullen & Co., Agents, Chitpore Hydraulic Press Company, Limited.	2, Calliprosunno Singha's Street, Chitpore	810 0 0	
11	Messrs. Reinholz & Co., Agents, Canal Press Company, Limited.	6, Nawabputty Street, Chitpore	570 0 0	9,182 0 0
<i>Jute Mills.</i>				
1	Messrs. Gladstone, Wyllie & Co., Agents, Clive Jute Mills.	48, Garden Reach Road	120 0 0	
2	Messrs. Bird & Co., Agents, Union Jute Company, Limited.	6, Gooreeparrah Road, Sealdah	100 0 0	
3	Messrs. Bird & Co., Agents, Union Jute Company, Limited.	Southerly godown of premises No. 3A, Ballinghatta Road.	100 0 0	
4	Messrs. Robinson, Morrison & Co., Managing Agents, Asia ie Jute Company, Limited.	73, Narkeldanga Main Road	60 0 0	
5	Deputy Superintendent, Alipore Jail	5, Jail Lane	60 0 0	
6	Messrs. George Henderson & Co., Agents, Burramore Branch Mills.	135, Ballinghatta Road	60 0 0	500 0 0
<i>Cotton Mills.</i>				
1	Messrs. Mackinnon, Mackenzie & Co., Agents, Garden Reach Cotton Mills Association.	22, Garden Reach Road	60 0 0	
2	Messrs. Andrew Yule & Co., Agents, Bengal Mills Company, Limited.	47, Ditto ditto	60 0 0	120 0 0
<i>Hand Screws.</i>				
1	Chunder Nauth Sha	1, Ramgopal Ghose's Lane, Chitpore	240 0 0	240 0 0
<i>Warehouses for storage of Jute.</i>				
1	Bidhoo Bhushon Mitter	4 and 6, Khelech Chunder Ghose's Lane	50 0 0	
2	Issur Chunder Mitter (owner Nilmoney Mitter)	18, Begtachin Road	50 0 0	
3	Agent, Eastern Bengal Railway Company	1, Upper Circular Road	700 0 0	
4	Ditto ditto ditto	8, Chitpore Cross Road	600 0 0	
5	Tarra Churn Guho	7 and 8, Prajkissen Mookerjee's Lane, Chitpore	300 0 0	
6	Ditto ditto	3, Ditto ditto ditto	50 0 0	
7	Pran Kissen Mookerjee	13 and 12A, Taliah Road	50 0 0	
8	Kylas Chunder Nundon	7, Chitpore Bridge Road	50 0 0	
9	Dwarka Nath Bhunjo	8, Oyle Chunditollah Road	50 0 0	
10	Ootsub Narin Chowdhury	10, Setpooker Road	92 0 0	
11	Mohima Chunder Coondoo	31, Canal West Road, Ooltadanghi	50 0 0	
12	Mohima Chunder and Kylas Chunder Coondoo	32, Ditto ditto ditto	50 0 0	
13	Gopee Mohun Roy	1-1, Buddri Das' Temple Street	50 0 0	
14	Ditto	29, Canal West Road, Ooltadanghi	65 0 0	
15	Tarraposunno Roy	33-4, Ditto ditto ditto	50 0 0	
16	Deop Chand and Hurro Chunder Coondoo	35-5, Ditto ditto ditto	50 0 0	
17	Mohun sansi Roy	36-1, Ditto ditto ditto	75 0 0	
18	Radii Kisto Guho	1, Chitpore Street	50 0 0	
19	Ditto	7, P. K. Mookerjee's Lane, Chitpore	50 0 0	
20	Dwarkanath and Bonomally Coondoo	20, Chitpore Ghât Lane	105 0 0	
21	Bonomally Coondoo (owner Kedarnath Mondul)	2, Bonomally Chatterjee's Street	50 0 0	
22	Gobindhone Sha	46, Canal East Road, Ooltadanghi	60 0 0	
23	Calli Sunker and Tarrucknath Coondoo (owner Nundo Lal Mullick)	6, Tallah Road	50 0 0	
24	Sonatone Ley (owner Prosunno Moyee Dassee)	6, Gouribere Lane	50 0 0	
25	Calli Sunker Coondoo	8, Tallah Road	50 0 0	
26	Nolit Mohun and Brindabun Chunder Sha (owner Bindoo Moni Dassee)	24-3, Canal West Road, Ooltadanghi	50 0 0	
27	Nolit Mohun and Bindabun Chunder Sha (owner Bindoo Moni Dassee)	24-2, Ditto ditto ditto	50 0 0	
28	Banuandhu Sickdar (owner Rameswar Baccoly)	25-1, Ditto ditto ditto	50 0 0	
29	Nurottum Sickdar	19, Gouribere Lane	50 0 0	
30	Nurottum and Prolhad Ch. Sickdar	83, Barrackpore Trunk Road	50 0 0	
31	Nilmadhub Sickdar	18, Ooltadanghi Road	66 0 0	
32	Soorjee Kumar and Guru Churn Sha	45, Canal West Road, Ooltadanghi	50 0 0	
33	Kisto Monsu Sha (owner Kistoziso e Peddar)	39-3-1, ditto ditto	50 0 0	
34	Dwarka Nath Roy (owner Nundolal Mullick)	6, Tallah Road	50 0 0	
35	Prolhad Chunder and Dignambur Sha	17, Chitpore Ghaut Lane	60 0 0	
36	Hurr Chunder Dutt	37-4, Canal West Road, Ooltadanghi	60 0 0	
37	Ditto ditto	19 and 20, Gouribere Lane	50 0 0	
38	Bejai Chunder Dutt	41, Canal East Road, Ooltadanghi	90 0 0	
39	Madhub Chunder Dutt	7, Nawabputty Street, Chitpore	50 0 0	
40	Rajendralal Sha and others (owner Rajendralal Neogy)	3 and 4, Chitpore Ghât Road	120 0 0	
41	Nuffer Chunder Sha	3 and 4, ditto ditto	60 0 0	
42	Calli Churn Poddar (owner Bindoo Sundary Dassee, Gungahur Coondoo and others)	2, Buddri Das' Temple Road	50 0 0	
43	Calli Churn Poddar (owner Harris Chunder Dutt)	20, ditto ditto	50 0 0	
44	Harris Chunder Dutt	39-3, Canal West Road, Ooltadanghi	50 0 0	
45	Audhur Ch. Mitter (owner Narendro Coomar Dutt)	16, Pykeparrah Road	50 0 0	
46	Behari Lal Pyne (owner Moguljan Ostagar)	25, Moorskipper Lane	50 0 0	
47	Prolhad Chunder and Dignambur Sha (owner Jibun Nessa Begum)	4, Chitpore Ghât Lane	50 0 0	
48	Messrs. Ernsthausen, Oesterley & Co. (owner Callidas Seal)	5, Calliprosunno Singha's Street, Chitpore	240 0 0	
49	Messrs. Ernsthausen, Oesterley & Co. (owner Callidas Seal)	3A, ditto ditto	180 0 0	
50	Probhas Chunder Chatterjee (owner Bykunt Nath Chatterjee)	2, P. K. Mookerjee's Lane, Chitpore	50 0 0	
51	Surroop Chand Seranghi (owner Tarra Chand Poddar)	18, ditto ditto	50 0 0	

No.	Name of the owner or occupier of the Warehouse.	Locality of the Warehouse.	Amount of license fee.	Total.
53	Rama Nath Das	1, Chitpore Bridge approach	Rs. A. P.	Rs. A. P.
53	Joggewar Coondoo (owner Govind Ch. Roy)	7, Setpooker Road	50 0 0	
54	Dwarka Nath Roy (owner Baboo P. K. Mookerjee.)	6 and 6A, Frankissen Mookerjee's Lane, Chitpore.	50 0 0	
55	M-hesh Chunder Coondeo	3, Calli Coomar Banerjee's Lane, Chitpore	50 0 0	
56	Indro Narain Biswas	2, Shaikparrah Road, Ooltadaughi	50 0 0	
57	Russick Lal Sha and 2 others	6, P. K. Mookerjee's Lane, Chitpore	50 0 0	
58	Chunder Nath Dalal	9, Belgatchia Road	50 0 0	
59	Ditto ditto	51, ditto	50 0 0	
60	Gyan Chunder Sen	15, P. K. Mookerjee's Lane, Chitpore	50 0 0	
61	Nilmoney Dutta (owner Nundo Lal Mullick)	5, Tallah Road	50 0 0	
62	Jugser Nath Bajpie (owner Haradhone Mondal).	18, Cossipore Road	50 0 0	
63	Shyama Churn Bullubh (owner Shyama Churn Lahoorey).	5, Belgatchia Road	50 0 0	
64	Harris Chunder Dutta	16, Chitpore Ghat Lane	50 0 0	
65	Kirtee Chunder Mitter	9, P. K. Mookerjee's Lane	50 0 0	
66	Ditto ditto	6, 8 and 10, Chitpore Street	180 0 0	
67	Indro Narain Biswas (owner Mohima Chunder Chuckerbatty).	14, P. K. Mookerjee's Lane, Chitpore	50 0 0	
68	Nilmadhub Sickdar	16 and 17, Galiffe Street, Baugbazar	50 0 0	
69	Harris Chunder Dutt (owner Nilmoney Mitter)	12, Belgatchia Road	50 0 0	
70	Sedam Chunder and Issur Chunder Coondoo (owner Ram Ch. Banerjee).	55, Barrackpore Trunk Road	50 0 0	
71	Shyama Churn Bullubh	5, Belgatchia Road	50 0 0	
72	Calli Sunker and Tarruck Nath Coondoo	26, Tallah Road	50 0 0	
73	Comulakant Chuckerbatty (owner Radha Nath Coondoo).	10, Nawabputty Street (present No. 14)	50 0 0	
74	Tarra Churn Guho	7 and 8, Chitpore Ghat Lane	65 0 0	
75	P. Augier	4, Kaliprosunno Singha's Street	75 0 0	
76	Pran Nath Banerjee	54, Barrackpore Trunk Road	50 0 0	
77	Sedam Chunder Coondoo and others	5, Calli Coomar Banerjee's Lane, Chitpore	50 0 0	
78	Messrs. W. B. Mactavish & Co.	Compartment 3 of building No. 3A, Balliaghata Road.	80 0 0	
				14,000 0 0
		Total ...		16,220 0 0

Cr. Statement showing the Receipts and Expenditure of the Jute Warehouse Fund for the year 1882-83. Dr.

	Rs. A. P.	Rs. A. P.
To Jute establishment ...	1,884 0 0	By Jute-license fees ...
" Fire-Brigade Fund	9,538 14 0	" fines
" Executive charges at 10 per cent	1,631 8 0	
" Contingencies	1 9 0	
" Balance	3,259 1 0	
Total ...	16,315 0 0	Total ... 16,315 0 0

Extract from the Register of Fires and operation of the Calcutta Fire-Brigade.

Date.	Locality of fire with section letter.	Time of outbreak.	Time of alarm at fire station.	Time of arrival of fire-brigade.	Farticulars as to numbers, description of buildings, or other property destroyed, with approximate value, and whether insured or not.	Cause of fire.	REMARKS.
1882							
April, 17th	24-Pergunnahs	11-15 P.M.	11-30 P.M.	12 P.M.	About 55 thatched huts and a small stack of straw just inside of the boundary of 24-Pergunnahs. Damage about Rs. 2,500.	Unknown ...	There was only a narrow road between the fire and the houses in the jurisdiction of the Suburbs, which would have caught fire if the engines had not been there. All out at 3-15 A.M.
,, 26th	B.—Suburbs, Chitpore.	8-10 A.M.	8-20 A.M.	8-40 A.M.	Two tiled huts, one containing jute and cotton for sale, the other occupied by a tailor. Shaikh Wozeer, the owner of the cotton shop, states that he saw fire suddenly blaze out of the cotton bag, but cannot account for it. Damage about Rs. 100.	Ditto ...	All out at 9-30 A.M.; steam engine was not required.
May, 5th	M.—Suburbs, Watgunge, Paccoortollah.	2 P.M.	2 P.M.	2-5 P.M.	Twenty-two golepatta huts, valued at about Rs. 600. Not insured.	Unknown. Broke out in the house of Rahaman Ali, occupied at that time by his wife and family who can give no account of how it originated.	All out at 5 P.M.
,, 5th	B.—Suburbs, Chitpore.	12-30 P.M.	12-30 P.M.	12-40 P.M.	Two tiled huts, valued about Rs. 70. Not insured.	Unknown. Broke out in the mat wall of the hut occupied by Shaik Haidoo.	All out at 2-30 P.M.
,, 6th	M.—Suburbs, Watgunge.	8-30 P.M.	8-30 P.M.	8-30 P.M.	Four golepatta huts, valued at about Rs. 150. Not insured.	Broke out in the cook-room of Doobree Bewah who was cooking, but left the room for a short time, and when she returned, found the place in a blaze.	All out at 9-30 P.M.

Date.	Locality of fire with section letter.	Time of outbreak.	Time of alarm at fire station.	Time of arrival of fire brigade.	Particulars as to numbers, description of buildings or other property destroyed, with approximate value, and whether insured or not.	Cause of fire	REMARKS.
<b>1882.</b>							
Nov., 10th	A.—Suburbs, Cossipore, Camperdown Press.	12 noon ...	12-25 P.M.	1 P.M.	Three large brick buildings used for storing jute, one ditto used as a spinning room, one ditto as press-house, seven presses and machinery, and the spinning room, machinery, jute, &c. Buildings insured; most, if not all, of the jute said to be insured. Value of building and machinery Rs. 3,02,000. Value of jute about Rs. 1,24,225.	Unknown. Alleged to have been caused by a spark from the chimney falling upon some loose jute spread out to dry on godown No. 3. Mr. Johnson, the Manager, states that he had just left No. 4 godown at 11-30 A.M., when he heard an alarm of fire on the roof of No. 3, he ran and ordered the engineers to put on the hose and to the people about to bring water. He got on the roof and thought he was putting the fire out when he chanced to look over the side and saw the press house had caught; at the same time one of the skylights of No. 3 seemed to burst, and the smoke poured out the same as from a furnace. He knew he could not save the jute there, so ordered the men to stand clear. He got to the telephone, and communicated with the office at two minutes to 12, and just had time to take the books out of the office, which took about five minutes, when the safe fell through the floor, and by the time he got to the	Information given by Mr. J. A. Kenison from the office in Wellesley Place, who had received the information by telephone. He arrived here at 12-25, and the engine reached the fire at 1 P.M. The whole range of buildings were then in a blaze, and all the brigade could do was to prevent it from bursting the engine house and three small godowns to the north, one was full of jute, the other was not more than half full, it was adjoining the godown on fire, and the walls were very hot; endeavours were made to get the jute removed, which was stacked against the wall, but coolies could not be obtained. In a few minutes more the jute would have caught fire and probably would have communicated to the adjoining godown which was full. As no further time could be lost, the brigade had no alternative but to pour water upon the jute and wall and prevented the fire from spreading in that direction.
" 27th	J.—Suburbs, Baugalparah.	12 P.M. ...	12-15 P.M.	12-30 P.M.	Twenty small thatched huts, valued at about Rs. 450.	Unknown. Originated in No. 5 engine remained on the spot till 2 A.M., when all was out. Steam-engine proceeded to Tallygunge, and it was not required as the 20 huts were destroyed within half an hour All out at 12 P.M.	
" 28th	K.—Suburb.	10 P.M. ...	10 P.M. ...	10-30 P.M.	One boat containing about 700 maunds of jute, valued at about Rs. 2,500. Not insured; boat also much damaged.	Unknown, Supposed to have originated from fire kept in an earthen pot on board.	
" 29th	M.—Suburbs, Tolly's Nullah.	11-30 A.M. ...	11-30 A.M. ...	12 Noon ...	Two country boats laden with straw. Damage about Rs. 200.	An empty boat belonging to Suddee Nath Janna was lying alongside these boats, the men were cooking, and it is alleged that a spark from their fire set the straw on fire.	The European Fire-Brigade exerted themselves in throwing the straw into the canal, by which means a quantity was saved; also the boats. All out at 2 P.M.
Dec., 14th	B.—Suburbs, Chitpore, Strand Bank Press.	9-10 P.M. ...	9-30 P.M. ...	10 P.M. ...	A large block of buildings about 200 by 150 feet, containing four presses, engines, jute, &c., also one godown about 200 by 40 feet full of jute, all destroyed. Value of buildings destroyed insured for Rs. 94,900, presses and machinery insured for Rs. 2,10,000, jute destroyed, valued at Rs. 1,80,000; total loss Rs. 4,63,900. Buildings saved Rs. 45,700, boilers Rs. 12,000; total Rs. 57,700. Two large godowns saved full of jute; value unknown, probably Rs. 1,00,000.	Unknown. Mr. Rekes, the Manager, was seated in his house and discovered a light in the jute room. He immediately gave the alarm and set his engine to pump water on the fire, but it spread very rapidly and the whole was in a blaze in a few minutes, work was going on in the mills by lamp-light, but the manager stated that the godown in which the fire originated had not been open for some days.	Arrived at 10 P.M. The buildings destroyed were then all on fire. A quantity of jute in bales and bundles of rope were lying at the north end of the godown destroyed; also between this and the main building which were in a blaze when the brigade arrived. Close to the door of an empty godown the door and door-posts were burnt, but the fire was put out without doing further damage. A number of bales were also lying at the south end of the same godown, which also caught fire, but it was quenched by the engine, and the bales removed which were lying nearest to them only paid attention to the godown, about 200 feet long till the morning of the 17th.
" 16th	B.—Suburbs, Chitpore Hydraulic Press.	9-15 A.M. ...	9-30 A.M. ...	10-10 A.M.	Two large sorting godowns by west and south, valued at about Rs. 70,000, insured for Rs. 60,000. Value of jute destroyed about Rs. 1,50,000.	Unknown. The godowns were opened in presence of one of the managing agents about 8-30 A.M., when everything appeared all right. At about 9-15 flames were suddenly seen issuing from one of the godowns, and in a few minutes communicated to the west. Straw in cow-shed caught fire from some fire left in a chatti.	Steam engine Ganges had just returned from the fire at the Strand Bank Press, where it had worked very well, but on putting it to work found the tubes were leaking, and it would not work, had to be sent home. One hand engine still there, 16th December 1882.
" 21st	E.—Suburbs.	12-30 A.M.	12-30 A.M.	2 A.M. ...	Fifteen golepatta huts, valued at about Rs. 50. Not insured. Four golepatta huts, valued at about Rs. 50. Not insured.	Originated in the hut of Troyuko Bewah, through the curtain coming in contact with some fire close to the bed.	All out at 3 A.M.
30th	E.—Suburbs.	12-30 A.M.	12-30 A.M.	1 A.M. ...			All out at 2 A.M.

Date.	Locality of fire with section letter.	Time of outbreak.	Time of alarm at fire station.	Time of arrival of fire-brigade.	Particulars as to numbers, description of buildings, or other property destroyed, with approximate value, and whether insured or not.	Cause of fire.	REMARKS.
1883.							
Jan. 17th	J.—Suburbs, Haldarpurah.	12 P.M. ...	12 P.M. ...	12-15 P.M.	Two small golepatta huts, valued at about Rs. 25. said to be 80 years old, and who always keep fire in a pot in the house and often in their bed, both were burnt to death before assistance could be rendered.	Caused by fire kept in a pan by Thakoor Dass, said to be 100 years old, and his wife Bhyrub Dassie	All out at 1-15 A.M.
, 22nd	B.—Suburbs Chitpore.	11-15 P.M.	12 P.M.	12-10 P.M.	One hundred and fifty drums of jute stacked up against the pucca wall of a jute-godown belonging to Hurro Nath Biswas : owing to its late arrival had not time to stow it inside : damage about Rs. 50.	Unknown ... ... ...	All out at 8 A.M.
, 27th	L.—Suburbs ..	2-15 P.M.	2-15 P.M.	2-20 P.M.	Four golepatta huts, valued at about Rs. 170.	Originated in the house of Potit Babonee Bewah, who after cooking left some fire on the hearth and placed some wood upon it to dry which blazed up and caught the mat-wall.	Engine on the spot immediately and prevented the fire spreading. If any delay had occurred, there would have been a large fire : all out at 3-30 P.M.
Feb. 8th	F.—Suburbs ...	3-45 P.M.	3-45 P.M.	3-50 P.M.	A quantity of jute in drums, damage about Rs. 350.	Drums of jute were being conveyed to the Burrangore Jute Mills and, after being deposited in the compound, caught fire : cause unknown : probably the carters had been smoking on the road and dropped fire into one of the drums.	All out at 5-30 P.M.
, 13th	J.—Suburbs ...	11-45 A.M.	11-45 A.M.	11-50 A.M.	Two golepatta huts, valued at about Rs. 50.	A boy, about five years old, during the absence of his mother, took some fire to some straw in adjoining room.	All out at 1 P.M.
, 18th	C.—Suburbs ...	2 A.M.	2-30 A.M.	2-45 A.M.	Nine tiled and golepatta huts; damage about Rs. 200. Not insured.	Fire took place in the house of one Shama, who after smoking left the chelum against the mat-wall, which took fire.	Fire not seen from the look-out owing to a very thick fog. Information sent to Tallah, from whence by telegraph to this office. Brigade proceeded to the spot, but was not required to work. Hose-cart drove over suction pipe of No. 2 engine, and was destroyed about 13 feet. All out at 4 A.M.
, 22nd	O.—Suburbs, Matiabpurj, Dhanketti.	3 A.M.	3 A.M.	3-20 A.M.	Eight golepatta huts, valued at about Rs. 550. Not insured.	Broke out in the house of Bindu Kahar from the light of a kerosine lamp catching the mat-wall.	All out at 4 A.M., after which it was discovered that a woman 55 years old, named Woazirun, was burnt to death. Supposed she was burnt while asleep. Fire not seen from Lall Bazar look-out, probably owing to the high buildings intervening.
March 8th	K.—Suburbs, Alipore.	10-20 P.M.	10-30 P.M.	11 P.M.	One pucca building used as Suburban Municipal Office, value Rs. 2,500	The fire broke out in an office in the upper floor occupied by Mr. Sterndale, Vice-Chairman. There were almirahs, papers, &c., in the office which were all burnt, as well as the beams, windows, and doors of the upper flat. The origin of the fire is not known. There can be no doubt, from enquiries subsequently made, that the fire was caused by lightning.	All out at 1 A.M. The jail engine worked well until it was stopped in order to shift the hose. When started again it would not draw water, on examination found that a screw bolt inside the pump was loose. (Easily repaired).
, 22nd	M.—Suburbs, Watgunge.	4-45 A.M.	4-45 P.M.	5 P.M.	Four tiled huts, valued at Rs. 108.	Fire left burning in chochlah by one Baney Madhub Das.	Fire seen from Watgunge fire station and extinguished by hand-engine. Not seen from police look-out.

## Rainfall, Weather, and State and Prospects of the Crops.

*Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different Districts of Bengal, as reported to Government during the week ending the 4th August 1883.*

No.	District, and date of return.	Rainfall at Sudder Station in inches.	Character of the weather, state and prospects of the crops, and state of health at date.
<b>BENGAL.</b>			
<i>Western Districts.</i>			
BURDWAN DIVN.	1 Burdwan. Aug 11 '83	5.69	Weather—cloudy, with showers at intervals. Transplanting continues. Prospects good.
	Culna ...	1.07	
	Cuttia ...	1.53	
	Raneeunge ...	1.26	
	2 Bankoora. " 11 "	6.20	Weather—cloudy and sultry. There was enough of rain during the week throughout the district, and the crops in the field are promising well. Hemp is in flower. Sugarcane is doing well. Public health good.
	Bishenpore ...	8.68	
PRESIDENCY DIVN.	Maliara ...	4.80	
	Khatra ...	6.13	
	3 Beerbhoom, " 11 "	1.74	Weather—cloudy, with occasional showers. Transplanting of <i>amun</i> crop nearly completed. State of the crop is good, except in a few places. Prices stationary. General health satisfactory.
	Rampore Haut ...	2.75	
	4 Midnapore, " 11 "	4.31	Weather—seasonable. Transplanting of paddy still going on. Prospects favourable. Public health fair.
	5 Hooghly, " 11 "	2.31	Weather—hot and rainy. Crops doing well. Public health good.
RAJSHAHI AND COOCH BEHAR DIVN.	Howrah " 13 "	1.06	Rain sufficient. <i>Aus</i> rice and sugarcane flourishing. <i>Amun</i> rice being transplanted. Jute being cut. An occasional case of cholera reported.
	Oolooberia ...	0.86	
	<i>Central Districts</i>		
	6 24-Pergunnahs. Aug. 13 '83	1.89	Weather—hot and dry, with occasional rain. Prospects of early crops good. Transplanting of <i>amun</i> going on. Public health good.
	7 Nuddea, " 11 "	1.83	Weather—rainy, cloudy, and cool. Prospects of rice crop fair. Manufacture of indigo going on briskly. Mortality from fever on the whole stationary.
	Kooshtea ...	1.57	
DACC DVN.	Meherpore ...	1.85	
	Chooadanga ...	2.38	
	Ranaghat ...	1.47	
	8 Khoina, " 11 "	1.84	Rainfall rather light: weather close and cloudy. Transplanting of <i>amun</i> rice going on. <i>Aus</i> rice in flower, and cutting has commenced in some places. Fever at Satkhira, otherwise public health good.
	9 Jessore, " 11 "	3.10	Weather—hot, with occasional showers. Prospects of crops good. Ample rain has fallen. Transplanting of <i>amun</i> progressing rapidly. General health good.
	Jhenida ...	0.86	Cases of fever here and there.
DACC DVN.	Magura ...	2.86	
	Narail ...	4.27	
	Bongong ...	2.60	
	10 Moorshedabad, " 11 "	3.11	Weather—hot and cloudy, with occasional showers. <i>Bhadoi</i> is being harvested in some places. Transplanting of <i>amun</i> continues. Other crops are doing well. Health of the people on the whole good.
	11 Dinagepore Aug. 10 '83	4.46	Weather—cloudy and showery. There was almost constant rain during the week, which has been of great service to the standing crops. Sugarcane is doing well. Jute is being cut. Transplanting of <i>amun</i> is being carried on. It is slow in some places owing to want of adequate rain. Rice selling at from 16 to 21 seers per rupee.
	Raibahye, " 11 "	1.66	A good rainfall at the sub-divisions, much less at head-quarters. Crops doing well.
DACC DVN.	Nattore ...	3.20	
	Nowgong ...	5.60	
	13 Rungpore, " 11 "	8.34	Weather—seasonable. Recent rain has done much good for transplanting of <i>amun</i> . Harvesting of <i>aus</i> is about to be completed. Public health good.
	Gaibanda ...	3.35	
	Kurigram ...	5.87	
	Nilphamari ...	7.05	
DACC DVN.	14 Bogra, " 11 "	2.58	More or less rain fell daily except on the 10th, when there were a few drops only. Transplanting of <i>amun</i> is still in progress. Harvesting of <i>aus</i> and jute going on. Public health good, except a few cases of fever reported from Bogra and Badulgachi police-stations.
	Pubna, " 11 "	2.39	Heavy showers; weather very close in intervals. Rivers still rising. Crops generally good. Jute rather poor.
	16 Darjeeling, " 11 "	7.57	Occasional heavy rain throughout the week. Crops in the hills progressing favourably. In the Terai early rice and jute being cut. Public health good.
	17 Juipigoree, " 11 "	19.88	Heavy seasonable rain. The heavy rain has benefited the crops. One station alone reports <i>bhadoi</i> and jute backward. General health promising.
	Cooch Behar " 10	11.75	Heavy rain in head-quarters sub-division, probably general. Heavy rain still falling. Heavy and continuous rain has set in, and is doing good to the young rice and furthering transplanting operations. Jute favourably reported of. Cholera disappearing.
	up to 8th.		
DACC DVN.	Dinbatta " 10	6.41	
	up to 5th.		
	Mathabhanga " 10	1.59	
	up to 4th.		
	Meckligunge " 10	4.54	
	up to 4th		
<i>Eastern Districts</i>			
DACC DVN.	18 Dacca Aug. 11 '83	3.19	Weather—seasonable. <i>Aus</i> paddy and jute are being cut. Sowing of <i>roachia</i> paddy going on. Prospects of crops good.
	Manickgunge ...	4.13	
	Munshigunge ...	4.76	
	19 Furreesapore, " 11 "	4.55	Weather—seasonable. Early paddy and jute being cut, with fair outturn. Prospects of late crops improved. Public health generally good.
	Goalundo ...	4.05	
	Madaripore ...	1.52	
DACC DVN.	20 Backergunge, " 9 "	4.28	Weather—seasonable. <i>Aus</i> crop being reaped. Transplanting of <i>amun</i> has commenced in some places. Cattle-disease still prevails in many parts of the Patuakhali sub-division, causing a serious loss.
	Mymensingh, " 10 "	3.60	Sky cloudy. Breeze from south-east. Showery afternoons. Nights cool. Transplanting of <i>amun</i> going on. More rain wanted in parts of the district. New jute coming into market, of poor quality, but fetching up to Rs. 3-4 a maund. <i>Aus</i> not expected to average over 8 annas in the Sudder sub-division. Fever prevalent.
	Jamalpore ...	5.57	
	Kishoregunge ...	1.94	
	Attea ...	4.41	
	Netrokona ...	2.09	

No.	District, and date of return.	Rainfall at Sudder Station in inches.	Character of the weather, state and prospects of the crops, and state of health at date.
<b>BENGAL—concl.</b>			
<i>Eastern Districts.—concl.</i>			
CHITTAGONG DIVN.	22 Chittagong, Aug. 14 '83	7.55	Weather—seasonable. Transplanting in progress. Prospects fair. Outturn of <i>aus</i> rice good. Prices stationary. Cattle-disease still reported.
	23 Noakholly, " 9 "	10.57	Weather—cloudy and rainy. <i>Aus</i> paddy being reaped. Transplanting of <i>amun</i> paddy continues generally.
	24 Tipperah, " 9 "	3.62	Weather—seasonable. State and prospects of crops good. Transplanting of late rice going on. Public health generally good.
	25 Brahmbaria Chandpore	2.27 5.10	
	Chittagong Hill Tracts.	2.80	Successive showers with high variable winds throughout the week. Cotton crop will be a failure, the highest estimate being 3 annas of an average crop. <i>Jum</i> paddy doing well, also sugarcane and plough-paddy lands.
HILL TIPPERAH	Hill Tipperah " 8 "	2.70	Weather—rainy <i>Satya</i> paddy and <i>til</i> being reaped. <i>Amun</i> still being transplanted. Sugarcane doing well. Public health good.
<b>BEHAR.</b>			
PATNA DIVN.	26 Patna, Aug 11 '83	1.47	Weather—hot and sultry. Transplanting of paddy in progress. <i>Bhadoi</i> crops have suffered from heavy rain and overflowing of the river in the Barh sub-division. Cholera reported from Barh and Behar sub-divisions.
	Barh	2.55	
	Behar	2.10	
	Dinapore	1.50	
	Gya, " 11 "	0.29	A break in the rains. Weather extremely sultry. Transplanting of paddy is nearly finished. All crops doing well. Indian-corn ripening, and promising a good outturn. Public health indifferent. Cattle-pox very prevalent.
BHAGULPORE DIVN.	28 Shahabad, " 11 "	0.08	Weather—cloudy, with west wind prevailing. The break in the rains beneficial to the <i>bhadoi</i> crops which, as well as rice, are doing well. Cholera abating in Bhabooah.
	Buxar	1.31	
	Bhabooah	1.26	
	Durbhunga, " 11 "	5.41	Weather—hot, but seasonable, heavy rain occasionally. Prospects of crops favourable so far.
	Mozafferpore, " 11 "	2.00	Weather—cloudy and showery. Crops in good condition. The rain has done much good in the Seetamurhee sub-division. Fair weather at present would be advantageous.
ORISSA DIVN.	30 Hajeeopore	1.31	
	Seetamurhee	7.52	
	Sarun, " 11 "	1.01	Weather—fair for the time of year. Prospects generally favourable. <i>Makai</i> in some places injured by the late heavy rain. Transplanting of paddy going on. Public health good.
	Sewan	2.45	
	Chumparan, " 11 "	4.07	Weather—cloudy, with frequent showers. Prospects of crops excellent. Sufficient rain throughout the district. General health fair.
BHAGULPORE DIVN.	33 Monghyr, Aug. 11 '83	1.63	Weather—hot and cloudy. The continuance of rain has been unfavourable to <i>bhadoi</i> crops. Transplanting of rice seedlings is progressing. Cholera still present in Monghyr town.
	Beguserai	2.98	
	Jamui	2.35	
	Bhagulpore, " 11 "	6.65	Heavy rain, though less in interior of the district than at Bhagulpore. Prospects of crops continue good.
	Purneah, " 11 "	3.05	Weather—normal, except in Sudder sub-division, where rainfall is short. Prospects of crops good generally, but more rain still wanted in the Sudder sub-division.
ORISSA DIVN.	Kissengunge	2.52	
	Arrareah	3.94	
	Maldah, " 11 "	1.32	A few light showers. Weather cloudy. South-east wind prevailing. Prospects of <i>bhadoi</i> paddy favourable, but more rain wanted for full growth of winter rice crop. Rivers rising. Public health good.
	Sonthal Perghs, " 11 "	3.09	Weather—warm and rainy. A little more rain wanted at Rajmehal. Rice everywhere promises well. Transplanting is well forward. Indian-corn will be a short crop. Public health good.
	Deoghur	2.21	
CHOTA NAGPORE	Rajmehal	1.01	
	Jamtara	2.71	
	Pakour	2.69	
<b>ORISSA.</b>			
Orissa DIVN.	38 Cuttack, Aug. 10 '83	2.18	Weather—cool and cloudy. <i>Sarad</i> being transplanted. <i>Beali</i> being weeded. <i>Sarad</i> crop on low lands in some parts of Jajpore and Kendrapara sub-divisions suffered a little owing to heavy floods in last week. Public health generally good. A few cases of cholera reported from the interior. Common rice selling at from 20 to 25 seers per rupee.
	Pooree, Khoorda	0.74 5.53	Weather—cloudy, with showers of rain. Transplanting and weeding are going on. <i>Beali</i> rice is in ear. Miscellaneous crops thriving. Prices stationary. Cholera reported from the interior.
	Balasore, " 10 "	3.29	Weather—rainy and cloudy. Weeding and transplanting in progress. The Subarnareka in the north has risen considerably. No injury to crops has been reported. Public health good.
<b>CHOTA NAGPORE</b>			
<i>South-West Frontier Agency.</i>			
41	Hazaribagh, Aug. 10 '83	1.96	Weather—less cloudy. Warm since the last three days. Transplanting operations are being pushed on vigorously. Prospects of both <i>bhadoi</i> and rice crops seem favourable. Cases of cholera still reported from several thanas, but the general health seems good.
42	Lohardugga, " 11 "	2.64	Weather—seasonable. Prospects good. Transplanting of paddy going on. Cholera increasing in Hussainabad. No cattle disease. Prices as before.
43	Palamow	5.27	
43	Singbhamon, " 10 "	4.10	Weather—bright and very hot. A break has succeeded heavy and continuous rain. All crops doing well, and agricultural prospects everywhere favourable. General health good, with the exception of a few cases of cholera reported from one outpost.
44	Ianbhamon, " 11 "	3.70	Weather—damp and warm. Prospects of all crops excellent. Small-pox at Topehanchi; otherwise public health good.
44	Govindpore	3.64	

Published for general information.

CALCUTTA, STATISTICAL DEPT.,

The 14th August 1883.

COLMAN MACAULAY,

Secy. to the Govt. of Bengal.

## Meteorological Report of the Province

Bengal for the month of July 1883.

DISTRICT OBSERVATIONS.												METEOROLOGICAL DIVISION.	
RAINFALL.													
Mean of district.	Normal mean of district.	Variation from mean.	Number of rainy days.	Normal mean number of rainy days.	Mean of district.	Normal mean of district.	Variation from mean.	Number of rainy days.	Normal mean number of rainy days.	Representative stations.	DISTRICT.		
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Gopalpore	.....	South-West Bengal.	
14'65	12'30	+2'35	20'0	18'3	32'56	22'89	+9'67	35'8	33'6	False Point	.....	Pooree	
14'01	13'01	+1'00	16'5	16'6	34'76	23'57	+11'19	37'9	31'7	Cuttack	.....	Cuttack	
12'93	13'69	-0'76	20'8	17'8	33'32	23'17	+10'15	43'4	33'9	Balasore	.....	Balasore	
19'24	14'98	+4'26	19'0	19'8	31'01	27'39	+3'61	37'7	38'5	Saugor Island	.....	South-West Midnapore and South 24-Pergunnahs.	
13'03	12'11	+0'92	17'4	17'1	21'20	24'15	-2'95	31'7	34'3	Midnapore	....	Midnapore	
16'80	12'11	+4'60	24'3	21'6	27'80	25'17	+2'63	44'4	43'4	Calcutta	....	24-Pergunnahs, Howrah, and Hooghly.	
17'15	10'49	+6'66	22'0	18'4	30'18	22'78	+7'40	39'3	36'6	Burdwan	....	Burdwan	
16'20	12'72	+3'48	20'6	19'9	31'30	25'30	+6'00	41'2	39'4	Raniganj	....	West Burdwan, Bankura, and Birbhum.	
11'74	10'63	+1'11	18'8	18'8	25'53	22'78	+2'75	39'7	36'2	Berhampore	....	Moorshedabad	
10'13	10'48	-0'35	17'2	17'7	19'86	24'00	-4'14	36'2	37'1	Nuddea	....	Nuddea	
13'71	10'68	+3'03	23'3	20'9	26'36	27'01	-0'65	45'8	44'4	Jessore	....	Jessore and Khoolna	
20'06	31'83	-2'77	29'0	25'1	80'80	66'56	+14'24	59'5	52'7	Chittagong	....	Chittagong	
19'18	18'68	-5'55	23'0	24'5	38'06	42'19	-4'13	57'5	52'4	Demagri	....	Chittagong Hill Tracts	
14'24	18'82	-4'58	24'2	26'0	33'92	43'94	-10'02	52'5	53'3	Barrisal	....	Backergunj	
23'27	23'50	-0'23	23'0	25'5	66'30	57'43	+8'87	53'2	53'7	Noakhally	....	Noakhally	
15'24	12'60	+2'74	23'6	21'3	27'02	30'01	-2'99	47'4	45'5	Furreedpore	....	Furreedpore	
17'72	14'11	+3'61	23'0	21'4	27'91	32'31	-4'40	46'4	45'2	Dacca	....	Dacca	
18'04	13'6	+4'37	22'7	22'0	37'63	36'29	+1'34	50'0	50'0	Commillah	....	Commillah	
12'98	14'36	-1'38	18'5	20'4	25'20	35'72	-10'52	42'0	46'7	Mymensingh	....	Mymensingh	
10'58	12'30	-1'78	16'5	17'7	22'91	28'75	-5'84	33'8	38'9	Serajgunj	....	Bogra and Pubna	
8'05	12'23	-4'18	18'3	18'2	18'46	25'71	-7'25	39'0	37'1	Rampore Beau-leah.	....	Rajshahi	
7'93	11'91	-3'98	18'2	18'3	21'16	31'01	-9'85	39'2	37'8	Dinagepore	....	Dinagepore	
7'76	15'78	-8'02	15'0	16'0	28'95	44'96	-16'01	39'8	40'0	Rungpore	....	Rungpore	
18'57	19'92	-1'35	19'6	20'7	63'02	62'34	-9'32	49'8	52'6	Julpigoree	....	Julpigoree and Cooch Behar.	
27'48	40'07	-12'59	22'5	26'6	74'07	85'02	-10'95	56'9	61'0	Darjeeling	....	Darjeeling Hill Tracts	
9'94	14'41	-5'37	12'8	15'0	36'71	27'96	+8'75	27'8	29'7	Purneah	....	Purneah and North Bhagulpore.	
8'82	11'37	-2'75	16'2	14'3	24'77	19'94	+4'83	29'0	25'6	Durbhunga	....	Mozaffarpore and Durbhunga.	
11'76	11'85	-0'10	14'0	13'9	18'11	21'70	-3'59	26'0	25'3	Motihari	....	Chumparun	
15'04	11'44	+3'60	16'5	15'9	24'89	18'95	+5'94	29'0	25'8	Chupra	....	Sarun	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dehree	....	North Behar.	
11'18	11'84	-0'68	17'2	17'4	19'01	17'81	+1'20	31'2	27'7	Buxar	....	Shahabad	
16'38	12'15	+4'23	17'2	15'4	27'94	18'94	+9'00	29'5	25'2	Gya	....	Gya	
13'31	11'84	+1'47	18'5	16'7	29'95	19'14	+10'81	30'1	27'6	Bankipore	....	Patna	
10'30	11'93	-1'57	15'8	18'6	22'13	20'07	+2'06	29'8	31'3	Bhagulpore	....	South Bhagulpore and Monghyr.	
12'03	12'82	-0'80	21'5	18'8	25'41	23'87	+1'54	40'3	34'8	Naya Doomka	....	Sonthal Pergunnahs	
14'68	12'71	+1'87	22'0	22'6	23'09	22'61	+0'48	38'0	40'4	Hazaribagh	....	Hazaribagh	
14'45	12'97	+1'46	23'2	20'8	26'37	22'01	+4'36	41'4	37'9	Ranchee	....	Lohardugga and Manbhoom.	
15'92	14'43	+1'49	21'0	21'6	25'47	25'14	+0'33	41'0	43'3	Chaibassa	....	Choya Nag-foor.	

Table of Rainfall recorded at Station

Meteorological division.	District.	Station.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
ORISSA	Pooree	Pooree	0'23	4'28	0'88	0'40	0'11	...	0'07	0'60	0'48	1'76	0'18	0'26	0'01	0'20	0'01	0'33	0'01	0'65	0'51	0'66	
		Khurdah	0'08	0'10	4'14	0'70	1'60	0'33	...	0'04	1'60	0'06	0'17	0'46	0'59	...	0'65	0'51	0'66	0'11	0'11		
		Banpur	0'20	1'90	2'20	0'47	...	...	1'00	2'36	0'20	...	...	...	...	...	...	...	...	...	...	...	
		False Point	0'05	0'09	0'89	3'36	1'16	0'26	...	0'37	0'33	1'07	0'21	0'26	0'03	...	0'13	1'94	0'03	...	0'20	2'64	0'03
		Hooikitola	0'10	0'85	3'10	0'88	0'30	...	0'20	...	0'82	0'04	0'20	0'54	...	...	...	...	...	...	...	...	
	Cuttack	Jakatsingapore	0'90	3'03	0'10	0'70	...	...	...	...	1'50	0'50	0'60	...	...	...	...	...	1'20	0'10	...	...	
		Banki	5'47	5'58	2'66	1'10	...	...	0'16	...	0'20	0'50	0'20	...	0'20	0'45	0'38	0'38	...	...	...	...	
		Cuttack	0'71	1'52	1'55	0'12	1'64	...	0'05	0'19	1'00	0'65	0'43	...	1'36	0'28	0'59	1'96	...	...	...	...	
		Kendrapara	0'06	1'04	0'03	...	...	...	...	...	1'60	1'70	...	...	...	2'00	0'40	3'30	1'28	...	...	...	
		Jajpore	0'10	1'50	1'85	3'30	0'40	...	...	...	1'30	0'55	0'23	...	...	0'28	2'28	1'71	...	...	...	...	
SOUTH-WEST BENGAL	Balasore	Chandbali	0'20	...	0'50	2'20	...	0'25	1'10	0'10	...	0'76	2'17	0'40	...	0'40	...	...	2'02	0'06	...	...	
		Bhuddruck	0'16	1'90	0'61	0'12	...	...	0'42	1'80	0'32	0'59	...	0'52	0'81	0'28	0'26	0'28	...	...	...	...	
		Sorah	0'12	0'20	0'30	0'90	0'30	0'25	0'25	0'40	...	2'10	0'40	0'49	0'07	0'10	0'20	0'60	0'30	0'70	0'68	...	
		Balasore	0'17	0'21	0'12	0'76	0'42	0'38	0'30	0'09	...	2'60	0'45	0'64	0'45	...	...	0'12	0'41	0'68	...	...	
		Jelaisore	0'30	0'50	0'30	1'00	0'48	0'07	0'00	0'90	0'55	0'80	0'34	0'30	...	2'58	0'14	0'30	0'28	...	...	...	
		Baripodah	0'03	0'30	0'15	0'26	0'90	0'39	2'14	0'50	...	0'02	1'50	...	0'93	0'12	0'58	...	2'09	0'25	0'16	...	
	Midnapore	Contai	0'35	2'59	0'11	0'68	1'01	0'20	0'14	...	0'15	...	3'41	0'21	1'24	0'26	0'03	...	2'76	0'92	0'74	...	
		Saugor Island	1'08	3'82	0'18	...	0'41	0'35	...	...	...	2'99	0'28	0'23	0'05	1'01	1'30	0'33	0'90	0'45	...	...	
		Tumook	0'60	0'90	...	...	...	...	...	...	1'60	...	0'99	...	...	...	...	...	2'00	2'10	2'16	...	
		Midnapore	0'05	0'90	0'24	0'03	0'60	0'13	0'02	0'06	...	0'16	0'24	1'04	0'10	...	...	...	1'02	1'71	0'12	...	
		Ghatial	0'50	0'22	0'26	0'97	0'20	...	0'45	...	...	0'77	0'34	0'24	...	0'77	1'39	2'11	0'72	...	...	...	
24-Pergunnahs	Diamond Harbour	Diamond Harbour	0'10	...	0'81	0'78	1'55	0'74	0'51	...	0'11	...	0'92	...	0'66	0'33	0'11	...	2'04	3'06	0'71	...	
		Alipore Jall	2'56	0'62	0'16	0'12	0'45	0'08	0'03	0'08	0'60	0'13	0'45	0'69	0'13	0'01	1'62	1'32	0'68	...	...	...	
		Barrackpore	1'10	0'92	0'19	0'00	...	...	0'40	...	0'16	...	0'82	...	1'10	0'10	0'10	0'75	...	...	...	...	
		Dum-Dum	0'05	0'60	4'25	0'62	0'16	0'15	0'40	0'20	0'06	...	0'39	0'02	0'26	0'05	0'03	1'19	3'37	0'72	...	...	
		Baraset	0'96	...	1'68	0'82	0'09	0'04	0'03	0'11	0'01	...	0'09	...	0'35	...	0'24	0'27	0'96	5'10	0'85	...	
	Howrah	Buseerhat	0'23	0'04	3'29	0'18	0'17	0'04	0'24	0'11	...	0'70	0'62	0'29	0'85	0'18	0'85	5'28	0'64	...	...	...	
		Howrah	0'33	1'77	0'39	0'22	0'0	0'47	...	0'62	0'21	0'41	0'04	0'23	0'45	...	0'18	1'14	1'40	0'69	...	...	
		Moheesreka	0'11	0'06	1'25	0'81	0'83	0'23	0'12	0'24	0'10	0'03	0'08	0'03	0'34	0'40	0'04	0'01	2'91	1'66	0'71	...	
		Hooghly	0'05	0'04	0'47	0'98	0'27	0'14	0'15	0'42	0'08	0'05	0'04	0'05	0'01	0'02	0'70	0'03	0'12	1'19	4'50	0'73	
		Jehanabad	0'53	...	0'69	...	0'35	0'09	...	0'07	0'01	...	0'23	0'17	0'72	2'00	0'25	0'78	...	...	...	...	
Burdwan	Burdwan	Cuina	0'33	0'29	0'07	0'32	0'15	0'15	0'05	...	...	0'85	...	0'85	...	0'35	1'45	4'35	0'71	...	...	...	
		Burdwan	0'11	0'03	0'0	0'04	...	0'17	0'22	0'07	0'05	...	0'39	0'14	1'10	0'09	0'16	0'58	1'20	10'31	0'8	...	
		Cutwa	0'25	0'33	...	...	0'05	...	0'23	...	0'04	...	0'50	...	0'50	...	1'37	2'45	0'72	...	...	...	
		Rase-gunge	0'40	...	2'29	0'20	...	...	0'30	...	0'40	0'25	...	...	0'80	0'60	...	6'30	3'40	2'43	0'71	...	
		Bankoora	0'85	0'03	1'15	...	0'10	0'11	0'21	0'07	0'15	...	0'33	...	1'03	0'26	...	2'45	1'21	4'25	0'7	...	
	Bankoora	Bankoora	0'06	...	1'37	0'12	0'11	0'36	0'18	0'10	...	0'18	...	0'31	0'50	...	0'90	0'58	3'00	0'71	...	...	
		Maliara	0'51	0'00	...	0'49	0'19	0'98	0'16	0'4	...	0'18	...	0'49	...	1'69	1'62	2'44	0'7	...	...	...	
		Khatra	0'05	...	0'00	...	...	...	0'06	0'14	...	1'79	0'02	0'11	0'10	0'38	0'21	...	0'65	2'79	0'53	0'05	...
		Beerbhoom	0'52	0'05	1'04	0'00	0'09	0'07	1'14	...	0'26	0'47	0'07	0'24	0'26	2'69	3'12	2'98	1'0	...	...	...	
		Bhetampore	0'10	0'02	0'29	0'08	0'18	0'21	0'06	...	0'26	...	0'26	...	0'15	0'71	1'77	2'37	2'12	0'0	...	...	
Nudde	Nudde	Bongong	1'20	0'55	...	...	0'05	...	0'80	...	...	0'10	...	0'70	0'32	0'60	0'30	0'55	2'40	...	...	...	
		Rangasghat	0'50	1'26	0'50	0'05	0'05	0'15	0'08	...	0'24	0'24	1'14	0'11	0'36	2'36	4'42	0'7	...	...	...	...	
		Kishimghur	0'26	...	...	0'09	0'04	...	0'07	...	0'82	0'31	...	1'12	0'39	0'07	0'07	0'07	...	...	...	...	
		Choodanga	0'50	0'20	...	0'32	...	...	0'32	...	...	0'11	0'32	...	0'42	0'70	0'65	0'38	0'73	...	...	...	
		Meherpore	1'72	...	...	0'15	...	0'06	0'14	...	1'79	0'02	0'11	0'10	0'38	0'21	0'71	0'08	0'08	0'11	0'71	0'08	

in Bengal in July 1883.

21	22	23	24	25	26	27	28	29	30	31	Number of rainy days.	Average number of rainy days.	Total rainfall for the month.	Average rainfall for the month.	Highest rainfall during the month.	Total rainfall from 1st January 1883 up to 31st July 1883.	Average rainfall from 1st January up to 31st July 1883.	Station.	District.	Meteorological division.
0'25	0'27	0'29	0'31	0'33	0'35	0'37	0'39	0'41	0'43	0'45	22	18'0	13'86	10'40	4'23	34'61	23'96	Pooree.	Pooree	... ORISSA.
0'06	0'14	0'19	0'25	0'31	0'34	0'32	0'36	0'39	0'41	0'43	24	21'8	14'52	13'20	4'14	36'06	29'28	Khurdah.		
0'13	0'19	0'23	0'27	0'30	0'33	0'36	0'39	0'42	0'45	0'48	22	16'2	14'71	11'58	2'36	29'16	24'90	Banpur.		
0'33	0'36	0'39	0'41	0'43	0'46	0'48	0'50	0'52	0'54	0'56	22	17'2	15'51	14'38	3'33	40'33	32'86	False Point.		
0'60	0'66	0'70	0'74	0'77	0'80	0'83	0'86	0'89	0'92	0'95	18	—	15'38	—	3'10	—	—	Hooikitola.		
0'34	0'34	0'19	0'05	0'07	0'11	0'17	0'36	0'19	0'21	0'29	21	—	13'65	—	5'47	—	—	Jagatsingapore	Cuttack	...
0'64	1'00	0'07	0'07	0'01	0'48	0'15	0'02	0'02	0'83	0'52	24	22'4	14'32	12'77	1'64	43'89	29'40	Banki.		
0'33	0'33	0'33	0'33	0'33	0'33	0'33	0'33	0'33	0'33	0'33	23	16'2	14'38	13'33	3'33	40'33	32'86	Cuttack.		
0'60	0'60	0'60	0'60	0'60	0'60	0'60	0'60	0'60	0'60	0'60	23	15'51	14'38	13'33	3'33	40'33	32'86	Kendrapara.		
0'11	0'29	1'27	0'33	0'08	0'39	0'25	1'25	0'25	0'65	0'65	14	16'2	15'77	14'20	3'30	42'96	33'43	Jajpore.		
0'02	0'02	0'02	0'02	0'02	0'02	0'02	0'02	0'02	0'02	0'02	17	13'4	13'83	13'07	2'20	46'55	24'69	Chandbali.	Balasore	...
0'00	0'00	0'00	0'00	0'00	0'00	0'00	0'00	0'00	0'00	0'00	17	17'7	11'91	12'98	2'49	37'21	31'35	Bhudruck.		
0'81	0'52	0'16	0'03	0'19	0'11	0'43	0'43	0'43	0'43	0'43	23	16'1	11'77	12'76	2'50	37'15	23'48	Sorah.		
0'00	0'70	0'70	0'14	0'70	0'70	0'48	0'48	0'48	0'48	0'48	23	19'2	10'73	11'61	2'69	40'96	33'25	Balasore.		
0'11	0'29	1'27	0'33	0'08	0'39	0'25	1'25	0'25	0'65	0'65	23	16'2	15'77	14'20	3'30	40'53	28'07	Jellasore.		
0'01	0'24	0'48	0'05	1'21	0'05	0'05	0'05	0'05	0'05	0'05	21	16'1	20'08	14'86	3'41	46'34	34'84	Contal.	Midnapore	... SOUTH-WEST BENGAL.
0'00	0'00	0'00	0'00	0'00	0'00	0'00	0'00	0'00	0'00	0'00	16	20'9	20'74	15'64	3'84	41'38	35'55	Saong Island.		
0'03	0'31	0'36	0'31	0'13	0'44	0'12	0'19	0'19	0'19	0'19	24	19'5	9'32	11'33	1'71	26'61	31'72	Tumlook.		
0'00	0'23	0'23	0'23	0'23	0'23	0'23	0'23	0'23	0'23	0'23	23	19'3	12'98	13'43	2'11	27'79	33'45	Midnapore.		
0'23	1'23	1'38	0'05	0'48	0'09	0'26	1'59	0'59	0'59	0'59	20	22'5	16'90	14'53	3'06	33'39	35'90	Diamond Harbour.	24-Pergunnahs	
0'45	0'02	1'19	0'08	0'20	0'43	1'43	0'60	0'83	1'91	1'91	27	24'2	16'27	13'33	2'56	33'51	34'61	Alipore Jail.		
0'41	0'70	0'70	0'70	0'70	0'70	0'70	0'70	0'70	0'70	0'70	27	19'6	15'55	12'14	5'10	35'38	31'42	Barrackpore.		
0'37	0'41	0'53	0'32	0'25	0'36	0'61	0'24	0'24	0'24	0'24	27	22'1	17'59	12'09	4'25	33'34	32'88	Dum-Dum.		
0'13	0'14	0'48	0'03	0'57	0'46	0'57	0'72	1'76	1'76	1'76	23	20'0	15'85	10'99	5'10	33'21	31'98	Baraset.		
0'22	0'06	0'67	0'67	0'51	0'29	0'38	0'95	0'95	0'95	0'95	23	20'1	23'08	12'86	5'68	46'36	34'99	Buseerhat.		
0'15	0'24	0'78	0'05	0'28	0'46	0'45	2'00	0'37	2'67	2'67	25	24'1	14'94	12'98	2'67	31'91	35'21	Howrah.	Howrah	...
0'02	0'35	0'60	0'04	0'20	1'07	0'39	0'33	0'33	0'25	0'25	23	21'5	15'65	13'39	2'91	34'21	33'97	Moherika.		
0'05	0'17	0'22	0'05	1'09	0'96	0'37	0'24	1'34	1'39	1'39	30	23'8	16'12	12'58	4'50	36'15	32'25	Scrapore.	Hooghly	...
0'88	0'71	0'01	0'01	0'09	0'69	1'13	0'94	1'24	1'24	1'24	22	21'4	20'56	11'86	3'15	39'38	34'73	Hooigly.		
0'29	0'29	0'01	0'01	0'02	0'26	0'26	0'98	0'98	0'98	0'98	19	19'2	12'40	12'33	3'59	23'35	32'70	Jehanabad.		
0'35	0'62	0'33	0'33	0'33	1'65	0'05	1'68	1'03	1'03	1'03	20	15'4	17'30	12'72	4'35	36'44	29'35	Culna.	Burdwan	...
0'81	0'66	0'02	0'06	0'09	0'10	0'49	0'01	1'13	3'53	3'53	27	21'2	21'13	12'42	10'31	49'02	32'44	Buridwan.		
0'40	0'70	0'10	0'10	1'55	0'11	0'12	0'05	0'05	2'97	2'97	19	18'7	12'32	10'05	2'97	26'30	29'08	Cutwa.		
0'35	0'04	0'04	0'04	1'45	0'17	1'08	0'05	1'77	1'88	1'88	23	21'3	23'87	11'06	2'79	32'47	27'77	Ranegunge.		
0'65	0'46	0'27	0'07	2'30	0'05	0'10	0'24	0'45	0'95	0'95	21	20'9	18'80	12'62	4'25	47'40	30'49	Banikora.	Bancoora	...
0'07	0'03	0'37	0'07	0'29	0'43	0'19	0'26	0'26	1'18	1'18	19	16'0	10'17	11'89	3'00	24'02	33'62	Bisheopore.		
0'51	0'45	0'10	0'47	0'35	0'35	0'35	0'35	0'35	2'00	2'00	17	19'7	12'54	12'03	2'44	35'52	27'59	Miliara.		
0'24	1'88	0'01	0'37	0'97	0'30	0'30	1'56	1'56	1'23	1'23	18	19'3	13'00	13'22	2'79	31'95	31'41	Khatra.		
0'70	0'33	0'08	0'01	0'09	0'51	0'25	0'15	1'08	1'11	1'11	26	15'8	19'43	12'72	3'12	45'91	29'30	Bh. Soory.	Beerhoom	...
0'30	0'23	0'08	0'08	0'27	0'74	0'45	0'14	1'22	1'28	1'28	23	22'5	15'69	12'66	2'74	29'42	32'06	Bhetiupore.		
0'50	2'40	0'05	0'05	1'80	0'05	0'11	0'10	0'21	0'21	0'21	21	15'8	13'77	11'05	2'40	30'25	33'08	Bongong.	Nuddea	...
0'80	0'01	0'83	0'01	0'01	0'83	0'69	0'69	0'24	0'24	0'24	22	15'9	17'08	9'91	4'42	37'31	30'88	Ranaghat.		
0'80	0'48	0'20	0'20	0'70	0'55	0'55	0'49	0'49	0'15	0'15	15	18'3	8'43	10'11	2'04	18'07	31'88	Kishnaghur.		
0'49	0'49	0'62	0'36	0'36	0'14	0'14	0'03	0'03	0'15	0'15	18	17'4	8'13	9'73	0'89	24'91	34'68	Choodanga.		
0'38	0'14	0'14	0'14	0'18	0'18	0'05	0'05	0'05	1'77	1'77	16	17'8	6'97	10'01	1'72	26'68	31'53	Mehr-pore.		
0'20	1'23	1'10	0'29	0'15	0'15	0'15	0'15	0'15	0'15	0'15	24	19'1	8'54	11'06	1'86	36'90	36'09	Kooshita.		
0'12	0'42	0'03	0'29																	

Table of Rainfall recorded at Stations

Meteorological division.	District.	Station.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<b>NORTH BENGAL</b>	<b>Pubna</b>	Pubna	0'12	...	...	0'87	...	...	0'11	0'06	0'11	...	1'82	...	0'22	0'51	0'81	1'07	...	0'23	0'7	
		Serajgunge	...	...	...	0'25	...	...	...	0'42	...	...	...	0'60	0'50	...	3'00	2'40	0'20	...	...	
	<b>Bogra</b>	Sherpore	...	1'56	...	0'31	0'04	...	...	0'35	...	...	...	1'10	0'76	0'20	1'90	1'40	0'20	0'25	0'9	
		Nowkhilla	0'04	...	...	0'12	0'04	...	...	0'05	0'02	...	...	0'15	2'03	0'41	...	2'03	0'40	0'27	0'9	
		Bogra	...	...	...	1'68	...	...	...	0'96	...	...	...	0'31	3'48	0'28	...	4'83	0'46	0'18	1'1	
		Panchbibi	...	...	...	0'41	...	...	...	0'26	...	...	...	0'10	0'30	0'94	0'39	1'43	0'63	0'90	...	
	<b>Rajshahye</b>	Benuleah	0'09	...	...	0'49	0'20	0'17	...	0'35	0'18	...	0'05	...	0'14	0'56	0'02	1'92	0'69	0'27	0'9	
		Nattore	...	...	1'10	...	0'10	...	...	...	...	...	...	0'40	...	0'10	...	1'10	0'35	0'15	...	
	<b>Maldah</b>	Maldah	0'02	...	0'03	...	...	...	...	0'66	...	...	0'04	0'09	...	1'14	0'90	4'22	0'51	0'05	0'2	
	<b>Dinagepore</b>	Mohadebpore	...	...	...	0'95	...	...	...	0'25	...	...	...	0'20	0'20	0'40	1'90	1'00	1'00	0'54	0'9	
		Chuamon	...	...	...	0'20	...	...	...	0'12	0'04	...	...	...	...	...	...	1'98	0'20	2'33	0'12	
		Raigunge	...	...	...	0'12	0'04	...	...	0'30	0'06	...	...	0'02	...	0'44	0'92	0'49	0'67	0'06	0'9	
		Dinagepore	...	...	0'22	...	0'02	...	0'01	0'23	...	...	0'04	...	0'04	...	1'03	0'28	0'22	1'60	0'06	
		Baloorghat	...	...	0'12	...	...	...	...	...	...	...	...	0'65	...	1'60	1'21	...	0'47	...		
	<b>Rungpore</b>	Bhawanigunge	0'30	...	1'40	...	...	...	...	0'14	...	...	...	0'16	...	1'28	...	2'81	...	0'50	...	
		Rungpore	...	...	0'04	...	...	...	...	0'02	...	...	...	0'78	0'02	0'33	0'44	2'13	0'01	0'33	...	
		Kurigram	...	...	0'95	...	...	...	...	...	...	...	...	0'11	0'28	...	0'60	0'85	0'08	...	...	
		Bagdogra	...	...	...	...	...	...	...	...	...	...	...	...	0'11	0'11	2'15	2'78	0'78	...	...	
	<b>Julpigoree</b>	Julpigoree	...	...	0'36	1'46	0'07	0'02	0'07	0'12	0'44	0'63	...	0'06	0'64	0'74	1'65	...	2'63	0'54	0'6	
	<b>Cooch Behar</b>	Dinhatta	0'01	...	0'36	...	0'03	...	0'19	0'34	...	...	...	0'02	0'40	1'64	4'53	0'87	1'81	0'9		
		Cooch Behar	...	...	0'05	...	...	...	0'12	0'05	0'25	...	...	0'45	0'65	7'61	0'62	1'25	1'90	...		
		Mickligunse	...	...	...	...	...	...	0'02	0'03	0'16	...	...	0'46	1'02	7'30	0'36	0'22	0'18	0'2		
		Matabhanga	...	...	0'76	...	...	...	0'02	0'60	...	...	...	0'15	0'24	6'93	0'71	1'76	0'22	0'9		
	<b>Darjeeling Hill.</b>	Buxa	0'22	...	...	1'60	...	...	1'92	0'40	4'46	...	...	0'90	...	2'00	1'09	1'37	2'19	...		
		Siliguri	0'05	1'03	1'48	...	1'30	0'02	0'02	0'45	...	...	0'06	0'13	0'90	0'15	3'90	1'10	1'0	...		
		Darjeeling	0'42	0'56	0'33	0'92	0'72	0'22	...	1'18	0'50	0'25	...	0'52	0'51	0'72	2'69	1'45	0'1	0'9		
		Kalimpong	1'37	0'04	...	0'19	...	0'07	1'00	...	0'53	...	0'03	...	1'26	...	0'23	0'07	0'93	0'14		
<b>NORTH BEHAR</b>	<b>Purneah</b>	Kissengunge	0'10	...	3'50	0'03	...	...	0'06	...	...	...	0'25	...	0'93	0'95	1'23	0'66	0'0	...		
		Arraresh	...	...	0'60	0'32	...	...	...	...	...	...	0'22	...	0'72	...	...	2'06	1'73	...		
		Purneah	...	...	1'58	0'01	...	...	0'04	...	...	...	0'15	...	0'27	0'75	0'48	1'50	0'11	0'0		
	<b>North Bhagulpore.</b>	Maddapore	0'07	...	0'22	...	1'84	0'05	...	...	...	...	0'28	...	...	1'85	0'05	0'10	0'85	0'1		
		Scopool	...	...	...	0'06	0'01	...	...	...	...	...	0'11	...	1'00	...	...	0'20	...	...		
	<b>Durbhunga</b>	Tajpore	0'29	0'36	...	0'16	...	...	0'10	...	...	...	0'68	...	0'28	0'26	1'47	0'93	0'06	2'7		
		Durbhunga	...	...	0'58	0'32	...	...	...	0'46	...	...	...	0'46	...	0'05	...	0'25	1'34	0'0		
	<b>Mozufferpore</b>	Sitamarhi	0'70	1'34	...	...	...	...	...	...	...	...	...	0'34	0'14	0'50	0'04	1'23	0'13	0'93	0'1	
		Mozufferpore	0'03	...	0'79	...	...	...	...	...	...	...	0'04	0'09	0'15	0'48	0'82	...	0'0	...		
		Hajipore	0'05	...	0'12	0'42	...	...	...	...	...	...	...	0'08	0'45	0'25	0'06	0'3	0'25	0'12		
	<b>Chumparun</b>	Motihari	1'50	...	2'42	0'88	...	...	...	...	...	...	...	...	...	...	0'53	0'25	0'12	0'0		
		Bettiah	0'62	1'10	2'05	2'50	0'10	...	...	...	...	...	0'44	0'20	1'00	2'19	0'24	0'0	0'0			
		Gopalgunje	0'55	...	0'35	...	...	...	...	0'42	...	0'42	0'09	2'10	2'22	0'02	0'21	0'30	0'0	0'0		
		Sewan	0'04	...	0'09	1'37	...	...	...	...	...	...	0'06	0'32	0'86	0'27	0'0	0'0	0'0	0'0		
		Chuprah	0'32	...	1'35	2'30	...	...	...	...	...	...	...	0'06	0'06	0'27	0'0	0'0	0'0	0'0		
<b>SOUTH BEHAR</b>	<b>Shahabad</b>	Buxar	0'06	0'20	1'27	...	...	...	...	...	...	...	0'04	0'13	0'02	0'71	0'53	2'82	0'10	0'0		
		Dehree	1'2	1'69	1'30	0'06	...	...	...	...	...	...	0'58	...	0'26	0'44	1'58	1'50	0'0	0'0		
		Bhuobooah	...	...	0'60	...	...	...	...	...	...	...	0'20	0'90	1'70	3'40	0'0	0'0	0'0	0'0		
		Sasseram	0'67	0'62	0'39	...	...	...	...	...	...	...	0'15	0'09	1'60	1'0	0'0	0'0	0'0	0'0		
		Arrah	...	...	0'65	0'02	...	...	...	...	...	...	0'02	0'39	0'02	0'14	0'31	0'0	0'0	0'0		
	<b>Gya</b>	Aurungabad	1'42	0'82	0'80	...	...	...	...	...	...	...	0'26	0'75	1'33	0'92	...	...	...	...		
		Gya	0'63	0'19	1'80	0'05	...	...	0'11	...	0'18	...	0'15	0'58	2'05	2'27	0'37	1'32	0'25	0'0		
		Nowadah	0'80	0'40	0'14	1'15	0'33	...	...	...	...	...	0'09	0'11	0'42	0'0	1'41	0'07	0'0	0'0		
		Jehanabad	...	...	0'41	1'60	...	...	...	...	...	...	0'12	0'30	0'82	...	0'15	0'15	0'62	0'0		
	<b>Patna</b>	Patna	0'04	0'55	0'17	...	...	...	...	...	...	...	0'37	0'68	...	0'14	1'57	0'81	0'0	0'0		
		Dinapore	0'10	1'00	0'20	...	...	...	...	...	...	...	0'10	0'35	0'10	0'35	0'05	0'29	0'0	0'0		
		Behar	0'13	1'79	...	0'64	0'64	0'04	...	0'03	...	...	...	0'16	0'93	0'18	2'30	0'0	0'0	0'0		
		Barrh	0'01	0'01	1'33	...	0'03	...	...	...	...	...	0'36	0'63	1'36	0'31	0'0	0'0	0'0	0'0		
	<b>Monghyr</b>	Begosserai	0'16	1'14	...	0'14	0'03	...	...	...	...	...	0'09	0'11	0'42	0'0	0'50	0'82	0'60	3'35	0'0	
</																						

Bengal in July 1883—concluded.

21	22	23	24	25	26	27	28	29	30	31	Number of rainy days.	Average number of rainy days.	Total rainfall for the month.	Average rainfall for the month.	Heaviest rainfall during the month.	Total rainfall from 1st January up to 31st July 1883.	Average rainfall from 1st January up to 31st July 1883.	Station.	District.	Meteorological division.
28	0'08	0'06	0'36	....	....	1'10	0'19	0'08	....	0'11	19	20'7	8'43	10'73	1'82	32'71	37'11	Pubna	... Pubna	... NORTH BENGAL.
10	0'80	....	....	....	....	1'10	....	....	0'48	11	15'5	11'85	11'43	3'00	36'70	34'58	Serajgunge.	...		
...	0'40	....	....	....	....	....	0'15	....	0'25	0'61	18	18'4	9'13	14'62	1'90	24'18	40'07	Sherpore.	... Bogra	...
...	0'03	1'33	0'09	....	....	....	0'15	0'06	0'25	0'12	29	20'1	8'47	11'80	2'03	26'83	35'89	Nowkhilla.	...	
...	0'31	0'02	0'20	0'88	....	....	0'04	....	0'09	0'60	17	19'2	16'19	16'75	4'83	34'31	46'77	Borra.	...	
...	0'17	0'03	0'27	0'50	....	....	....	0'21	....	0'56	16	15'3	8'09	13'23	1'43	24'11	34'49	Panchabibi.	...	
...	0'04	....	0'16	....	0'03	0'68	0'05	0'56	....	....	21	19'0	5'66	11'64	1'92	19'36	32'46	Beauleah.	... Rajshahya.	...
...	0'50	....	1'26	0'90	....	0'30	....	....	1'50	13	15'1	7'85	12'42	1'59	29'68	34'66	Nattore.	...		
...	0'22	0'83	....	0'23	0'05	0'06	0'43	0'03	0'30	0'46	21	19'5	10'65	10'60	4'22	23'22	23'09	Maldah.	... Maldah.	...
...	0'04	0'39	0'15	0'70	....	0'45	0'23	0'03	0'37	0'31	20	15'8	9'55	10'22	1'90	20'99	33'93	Mohadebpore.	...	Dinagepore.
...	0'18	0'02	0'44	0'08	0'04	....	0'06	0'96	....	1'48	14	18'3	7'44	9'27	2'33	25'33	24'32	Churamion.	...	
...	0'29	0'04	0'74	....	0'31	0'06	0'05	0'03	0'28	21	19'6	7'30	11'21	2'38	29'40	35'46	Raiagunge.	...		
...	0'32	....	0'09	0'03	0'02	....	0'03	1'12	....	1'13	18	19'4	7'43	15'20	1'60	33'35	43'91	Dinagepore.	...	
...	....	1'40	....	0'48	....	....	0'15	....	1'30	9	—	7'33	—	1'60	—	—	—	Baloorhat.	...	
...	0'07	....	0'90	1'20	....	....	1'41	0'08	....	....	13	13'0	10'40	12'58	2'81	30'23	41'43	Bhawanigunge.	...	
...	0'09	0'12	....	0'13	0'04	....	0'13	0'70	....	0'20	17	18'9	6'05	16'79	2'13	33'53	55'37	Rungpore.	...	
...	...	...	0'85	....	0'15	....	....	0'25	....	8	14'9	4'28	15'33	0'95	46'66	57'62	Kurigram.	...		
...	0'25	....	....	0'15	....	0'08	....	0'09	....	3'02	13	17'3	10'32	13'94	3'02	45'05	58'79	Bagdara.	...	
...	0'48	0'41	....	2'78	2'14	0'63	0'01	....	1'46	4'72	24	21'8	23'62	25'08	4'72	72'51	72'82	Julpigoree.	... Julpigoree.	...
...	0'19	....	....	0'57	0'29	....	0'12	2'22	0'19	19	19'3	14'30	18'11	4'53	54'12	70'55	Dinhatta.	... Cooch Behar.	...	
...	0'45	....	0'70	2'78	0'65	....	2'92	1'32	....	17	20'4	22'20	23'04	7'61	69'87	80'24	Cooch Behar.	...		
...	0'19	0'23	....	0'30	3'00	0'02	....	0'11	....	17	26'5	14'54	21'55	7'30	55'15	60'97	Mickilungunge.	...		
...	0'68	0'30	0'12	0'72	2'56	0'01	0'69	0'16	0'78	0'21	21	21'3	18'21	22'44	6'93	68'72	75'92	Matabananga.	...	
...	0'58	0'50	2'64	6'40	0'72	....	1'45	2'27	4'18	0'18	20	25'4	35'71	48'52	6'40	125'10	131'34	Buxa.	... Darjeeling Hill.	...
...	0'30	0'02	0'73	0'80	0'18	0'03	1'60	3'65	0'13	23	—	19'93	—	3'90	—	—	—	Silguri.	...	
...	0'27	0'86	1'04	0'99	0'72	0'11	....	1'29	1'26	0'45	25	27'8	18'25	29'87	2'09	71'06	70'05	Darjeeling.	...	
...	1'37	0'41	1'80	0'18	....	....	0'52	0'21	0'53	21	—	12'89	—	1'87	—	—	—	Kalimpong.	...	
...	0'35	0'02	....	0'50	....	0'04	0'65	0'19	0'50	18	20'7	10'34	16'25	3'50	39'88	40'99	Kissengunge.	... Purneah	... NORTH BEAR.	
...	0'19	0'14	0'18	0'46	....	0'37	....	0'45	0'40	16	18'8	7'43	15'57	2'06	41'28	37'96	Arrasrah.	...		
...	1'19	0'14	0'18	0'46	....	0'37	....	0'49	0'03	1'30	18	20'1	8'90	14'98	1'58	23'80	32'24	Purneah.	...	
...	2'20	0'20	0'45	0'15	1'12	0'05	0'25	....	0'60	0'95	20	15'5	12'51	12'29	2'90	46'72	27'14	Maddapore.	... North Bhagulpore.	...
...	0'20	....	0'65	0'12	....	0'30	....	3'10	....	11	17'1	6'65	11'71	3'10	33'80	28'62	Soopool.	...		
...	0'19	0'36	0'09	2'35	0'21	0'20	0'05	0'60	0'33	19	13'5	10'88	12'04	2'97	27'32	22'91	Tajpore.	...	Durbhunga.	
...	0'41	0'33	....	0'64	0'12	0'04	0'24	....	0'50	0'88	15	14'2	6'44	11'91	1'38	25'70	24'20	Durbhunga.	...	
...	0'10	0'07	0'20	2'96	0'30	0'31	0'05	....	0'36	3'96	16	14'3	12'89	10'17	2'96	31'96	24'53	Madhubani.	...	
...	0'69	0'13	....	0'88	0'32	....	0'20	1'59	....	11	11'3	7'03	10'38	1'50	18'71	23'77	Sitamarhi.	... Mozuferpore.	...	
...	0'12	0'05	0'07	0'80	0'07	0'22	0'48	0'01	0'44	21	15'4	8'83	10'74	1'27	32'45	23'18	Mozuferpore.	...		
...	0'49	....	0'34	....	1'60	0'35	0'36	....	0'36	15	17'2	6'83	11'39	1'60	25'15	22'16	Hajipore.	...		
...	...	1'02	0'85	0'05	....	....	1'79	1'14	....	13	13'0	10'94	10'67	2'42	21'08	23'26	Motihari.	... Chumparun.	...	
...	...	0'32	2'20	0'86	1'45	....	0'50	1'10	....	14	13'1	13'60	12'76	3'20	24'51	27'02	Betiah.	...		
...	0'02	....	0'43	1'43	0'60	....	2'22	0'73	....	15	15'8	16'02	12'70	2'22	20'07	25'20	Gopalgunge.	...		
...	0'27	0'77	....	0'09	3'72	0'44	0'54	0'10	1'10	0'06	19	16'2	13'90	11'70	3'72	24'39	23'08	Sewau.	...	
...	1'84	0'94	....	....	3'33	0'66	2'12	....	0'68	14	15'7	16'18	10'19	3'33	30'02	19'87	Chupra.	...		
...	0'02	0'12	0'60	0'27	0'28	0'45	1'52	0'15	0'37	22	17'5	13'92	11'63	2'82	23'82	18'99	Buxar.	... Shahabad	... SOUTH BEAR.	
...	1'20	0'06	0'23	0'15	0'47	0'20	0'90	....	0'56	19	—	13'80	—	1'92	—	—	—	Dehree.	... Dharbhush.	
...	0'04	....	0'20	0'07	3'10	0'08	0'30	0'05	0'78	15	15'2	13'86	12'47	3'40	18'96	21'09	Rhuboosh.	...		
...	0'17	0'43	....	1'68	0'21	0'60	0'06	0'14	0'53	18	18'8	8'72	12'46	1'50	19'21	20'48	Sassaram.	...		
...	0'64	1'02	0'12	0'61	....	1'65	1'57	....	...	14	18'0	8'23	12'43	1'57	22'15	27'27	Arrah.	...		
...	0'64	0'31	....	0'29	0'34	0'01	....	0'65	1'14	17	17'1	11'21	11'21	3'35	33'51	21'48	Aurungabad.	... Patna.	...	
...	0'15	0'23	....	0'28	0'40	....	....	0'76	1'92	14	19'4	8'20	11'36	3'70	20'10	22'08	Gya.	...		
...	0'71	....	0'62	....	8'98	....	....	0'76	1'											

**METEOROLOGICAL AND RAINFALL SUMMARY FOR THE MONTH OF JULY 1883.**

JULY is one of the most important months in the year from a meteorological point of view; it is the month which usually brings the heaviest rainfall over the whole of the Lower Provinces, and it is remarkable that, if there are any considerable variations in the rainfall distribution during this month from the normal distribution, they are usually found to remain more or less persistent throughout the remainder of the rainy season. July is the first complete month of the actual monsoon period; for the two branches of the south-west monsoon—the one derived from the Bay of Bengal, and the other from the Arabian Sea—do not usually establish themselves with full force over the whole of the land area until quite the end of June. Considerable importance should therefore be attached to the rainfall for July from two points of view: *first*, as to the actual amounts of rain received during the month, and to its distribution; and *second*, to the indications which the rainfall of July affords as to the probable distribution of rain during the remaining portion of the south-west monsoon.

The circumstances and conditions of the establishment of the south-west monsoon currents in Bengal were fully referred to in the meteorological summary for the month of June; it was there pointed out that the monsoon rains of the Bengal Provinces are brought about by the combined action of the Bay of Bengal monsoon current and the Arabian Sea current. The Bay of Bengal current usually is established by the second or third week in June. The Arabian Sea current has, however, to advance itself slowly across Central India and the Central Provinces, and generally is not fully established until the end of June. In its forward progress it then meets the Bay of Bengal monsoon current, and the interaction of the two currents gives rise to an eddying motion of the atmosphere over the area of interference. In normal years, with monsoon currents of average strength, the principal amount of interference of the two currents appears to take place over the North-West Provinces, though the extent and position of the interaction will probably mainly depend on the relative strengths of the two currents.

The Arabian Sea current is mainly westerly, but the character and direction of the Bay of Bengal current is considerably modified by the geographical or rather physical features of the country over which it is flowing. Over the sea area (that is in the Bay of Bengal), the current is probably mainly south-westerly in direction, but as it reaches the coast line and advances over the land area, the gradual deflection is clearly marked; it first changes to a south wind, then to south-east, and finally becomes an almost easterly wind flowing up the Gangetic valley along the base of the Himalayas. It will be evident that the extent of the interference between the two currents will vary according to the place of meeting, or rather according to the angles which the two branches of the monsoon winds make at their junction with each other.

In any case, however, the interaction or intermingling of two currents of moist winds blowing in somewhat different directions must necessarily cause a certain amount of ascensional movement of the air, which will inevitably result in the cooling of the air, and the consequent condensation of a certain proportion of the aqueous vapour in the form of rain; and further, it will probably be true that the greater the amount of interference between the currents, the larger will be the ascensional movement, and the greater the condensation. From these principles, then, it would appear tolerably certain that any marked inrush of westerly winds, brought by the Arabian Sea monsoon current, into Bengal, meeting with the Bengal current, would give rise to heavy rainfall. Further, it would appear that, as the Bay of Bengal current changes its direction, becoming more easterly in its advance over the land area, a greater amount of interaction between the Bengal and Bombay currents would take place in the northern and western divisions of the Province, such as in Behar, in the western districts of Bengal and in Chutia Nagpur, than in the southern districts, and, other things being equal, condensation would be heavier in these districts. With reference to this latter point, however, it must be remembered that, as the monsoon winds flow over the land area, they part with a certain portion of their moisture, and this to a proportional extent will reduce their power of producing heavy condensation in the districts further removed from the sea.

It must not, however, be forgotten that the rainfall during the south-west monsoon is not a steady and continuous action. As mentioned in the meteorological report for June, "it occurs rather as a series of pulsations or waves of aqueous vapour condensation or rainfall. The intervals between the bursts of general rainfall are extremely favourable to the formation of cyclonic vortices at the head of the Bay, which advance landwards towards the Bengal or Orissa coast, and give heavy and occasionally excessive local rainfall to the districts over which they pass." During the formation of these small storms over the sea area, there is generally a certain amount of indraught towards the centre of disturbance, and, as a consequence, the winds over the land area are light and dry, and give rise to little or no rain. Hence, in the discussion of the meteorological conditions of the past month, the two points which have to be kept in view are—*first*, the character and intensity of the two monsoon currents from the Bay of Bengal and Arabian Sea; and *second*, the occurrence, nature, and locality of the small cyclonic storms which are so characteristic of the rainy season.

*The normal distribution of the rainfall in Bengal in the month of July* would appear to be influenced by a combination of three effects. It is well known that the distribution of rainfall in any country is ordinarily affected by two causes—*first*, by proximity to sea areas;

and second, by the proximity to a range of hills or mountains. The districts nearest to a sea area, and those in the immediate neighbourhood of hills or mountain ranges, will receive from well understood natural causes a rainfall larger than the districts remote from the same natural features. The third cause acting in the case of the rainfall in Bengal is the intermingling of the two monsoon currents—the one from the Arabian Sea, and the other from the Bay of Bengal. The effect of this action has been explained previously. Two lines of maximum rainfall may then be traced in the normal rainfall in Bengal during July; there is the first line more or less parallel to the sea coast, and the second line of maximum rainfall more or less parallel to the ranges of the Assam and Nepaul Hills. The line of twenty inches average rainfall during July runs through the Eastern Bengal districts at some little distance from the coast line, the distance from the coast increasing as it moves to the eastward. A second line of twenty inches average rainfall is also found along the Darjeeling Hills, running here almost due east and west. The line of fifteen inches average rainfall starts from Saugor Island, and runs in an easterly direction parallel to the first-mentioned line till near the Tippeah Hills, when it suddenly turns in a north-westerly direction, finally passing through Bogra and Dinagepore, when it is more or less parallel to the line of twenty inches in the Darjeeling Hills. The line of twelve inches average rainfall runs from Northern Behar almost due south-east parallel to the fifteen-inch line, but on reaching South-West Bengal it doubles back, running almost parallel to the Chutia Nagpur district, and finally passing through South Behar until it nearly returns to the point of starting so as to form a closed curve. It will be seen that this line therefore practically follows the line of the basin of the Ganges. Inside this area of average rainfall of less than twelve inches, there are two areas of considerable interest. The first is the area of minimum rainfall of the month, which embraces the Jessor district, some parts of the Nuddea and Burdwan districts, as well as the Rajshahye district, and the second is an area of somewhat increased condensation in parts of the Patna district. The Chutia Nagpur Division during the month receives a normal rainfall of between twelve and fifteen inches. This somewhat larger amount of rainfall is probably produced by the intermingling of the two branches of the monsoon currents as before explained.

The position of minimum *normal* rainfall during this month, as noted above, is certainly remarkable, but it is perhaps susceptible of explanation on the principles above laid down. The western and the north-western divisions of the Province are influenced by both the Arabian Sea and Bay of Bengal monsoon currents, which by their intermingling produce increased condensation or a larger amount of rainfall. This intermingling probably in normal years does not extend very far beyond the Chutia Nagpur districts. The southern districts of the Province receive somewhat increased rainfall owing to their proximity to the sea. The eastern and northern districts of the Province are influenced by the ranges of mountains or hills to which they are adjacent, and they also by well known physical laws will receive considerable rainfall under the action of moist winds. It is therefore only the central districts, such as mentioned above, which are uninfluenced by any of the causes which are calculated to produce additional rainfall, and they are consequently the districts in which the average rainfall is the smallest of the whole Province.

*Meteorological summary of month.*—The concluding days of June had witnessed the formation of a small cyclonic vortex of moderate intensity, accompanied by strong winds, on the neighbourhood of the Sandheads. This had moved slowly westwards across the Orissa Hills into the Central Provinces, and had caused considerable indraught of strong southerly winds across the Bengal coast. The southerly winds gradually died away on the 1st and 2nd of the month, and were feeble on the 3rd. On the 4th instant a second barometric depression commenced to form close to the coast of the Sunderbuns, probably near the Sandheads. This cyclonic vortex was, however, a feeble one, considerably more feeble than the former one, and after remaining stationary for two days, it gradually moved westwards and crossed the Balasore coast on the evening of the 7th instant. It advanced across the North Orissa hills into the Central Provinces, where apparently it broke up on the 9th. Southerly winds were again established over the Bengal coast with the passage of this vortex inland, and they continued to blow with moderate strength for some days.

These two cyclonic vortices caused considerable indraught towards the centres of disturbance from all sides, and thus their formation and advance westwards were accompanied by the setting in of more or less northerly winds in North Bengal, which, as well as in subsequent cases, it will be seen considerably affected the rainfall of Central Bengal for the month.

On the 10th instant a new cyclonic vortex began to be developed, but on this occasion it was formed much further south than in the previous instances, and also nearer to the Arrakan coast. The vortex developed slowly on the 11th, and commenced to move in a westerly direction on the morning of the 12th, and it apparently crossed the coast to the south of False Point near Gopalpore on the evening of the 13th. During the formation and passage of this vortex, the southerly winds in Bengal were to a great extent replaced by northerly winds of indraught towards the vortex, and it was only after the storm had passed inland that the southerly winds re-established themselves over the Province.

The Bombay monsoon current was at this period blowing strongly across the Bombay coast into the Central Provinces and Central India; on the 16th westerly winds set in at the Chutia Nagpur stations, and at the more southerly stations in South Behar. They gradually extended their area of action till they blew with moderate velocity over Orissa, Chutia Nagpur, South-West Bengal, Behar and the north-west angle of the Bay. Here

they met the Bengal currents of moderate intensity which were blowing, and the effect of the meeting of the two moist wind currents in Bengal was to produce a considerable amount of ascensional movement in the air, and therefore to diminish pressure till Bengal became a shallow, but large, area of barometric depression. This interaction of the two currents was of course attended by a large amount of vapour condensation, and the rain which fell during this period from the 17th to the 21st was heavier, more general, and more uniformly distributed than at any other period of the present monsoon. Both currents, however, rapidly decreased in strength, and by the 24th instant light unsteady winds prevailed over the greater part of the Province. Strong monsoon winds were, however, blowing in the south, and probably over the greater part of the Bay, and these conditions gave rise to the formation of an area of disturbance of rather wide extent over the head of the Bay. This, however, did not localise itself into the usual well-defined cyclonic vortex, but remained as a large shallow depression over the Sunderbans, which was stationary up till the 27th, and then advanced westwards into the southern districts of Chutia Nagpur. With the advance of this large area of depression, a considerable inrush of moist monsoon winds took place into Bengal. This caused very heavy rainfall, especially in the Eastern Bengal districts, which continued for some days, and which was accompanied by a falling barometer. The continuance of these conditions gave rise to the formation of a new area of shallow barometric depression, which was so diffused that it was almost impossible to exactly localise the centre. The lowest barometer, however, was recorded in the neighbourhood of Dacca, and the depression after remaining stationary for one day advanced on 1st August in a north-westerly direction, and gradually filled up on the following day.

One of the noteworthy features in the meteorology of the second half of the month has been the persistence of a strongly marked westerly set in the winds of Chutia Nagpur, Orissa, Behar, and South-West Bengal. This appears clearly to be due to the Bombay branch of the monsoon currents forcing its way further to the east in Bengal than usual; while on the other hand, it would also appear to indicate that for the second half of the month the current for the Bay of Bengal has been somewhat weaker than usual.

The actual rainfall received in the Province during the month of July has, when the whole area only is considered, been of a fairly average character, but the distribution of the rainfall has varied from the normal to a very considerable extent. Thus when the average rainfall of each meteorological district is considered, it is found that South-West Bengal received a rainfall about 18 per cent. in excess of the normal amount; Chutia Nagpur received an average excess of 12 per cent. over the normal fall; Orissa an excess of 4 per cent., and South Behar and East Bengal an excess of 3 per cent. On the other hand rainfall in North Behar was on the average 18 per cent. in defect of the normal fall, and North Bengal 22 per cent. in defect of the normal. If, however, the various districts are considered to have an equal value in such a calculation, it will be found that the percentages in excess and defect of the normal exactly neutralize one another, and thus it may be fairly stated that, when the whole area of the Province is considered, the rainfall was about equal to the average. Taking, however, the distribution of the rainfall as roughly indicated by the above percentages, it will be found that the western, southern, and central districts received amounts in excess of the normal fall, while the northern divisions received a very deficient rainfall.

The area of excess rainfall varying from about +10 inches down to zero above the normal may be also said to include the districts between the mouth of the Hooghly on the west and Chittagong on the east, and to extend in a north-westerly direction nearly to Patna, a branch of the area of excess rainfall turning towards north-east, and including Eastern Bengal and Hill Tipperah. This area therefore includes practically the whole of South-West Bengal, East Bengal, the southern parts of South Behar, and the western districts of Chutia Nagpur, and it clearly includes that area of the country which has been principally subjected to the action of the cyclonic vortices described previously. A further area of excess rainfall starts from Orissa in a north-westerly direction through Chutia Nagpur, and includes the eastern districts of this division. This again is another area which has been affected by the passage of cyclonic vortices during the past month. Between these two areas of excess rainfall there is an area of diminished rainfall, the line of which appears to coincide very fairly with the direction of the Chutia Nagpur hills, and which runs along at their base. Northern Bengal and Behar are wholly in defect by amounts varying generally from zero up to 10 inches; the lines of maximum defect rainfall are nearly parallel to the line of the Himalayas, and the defect lessens with the distance from the hills. Two or three striking irregularities should, however, be mentioned, the first being the abnormally light rainfall received at Rungpore and some of the districts adjacent to it, and a somewhat similar case at Mymensing, and the abnormally heavy falls received in the Burdwan and Ranigunge districts, and at Satkhira, in the Khoonla district.

It would appear probable that the excess rainfall over the large areas noted above is due to the action of two of the causes mentioned in the meteorological summary. The first cause is the more extended action of the Bombay current during this month, causing an intermingling with the Bengal current further to the east than usual, thus producing increased condensation or rain, and carrying the lines of heavy rainfall more to the east; and second, to the passage in a north-westerly direction from the head of the Bay of Bengal of the various barometric depressions noticed above, each depression causing heavy rainfall over the districts through which it passed. But from the indraught from all sides

which these depressions always cause in their formation and advance, it is clear that somewhat northerly winds of indraught must have frequently obtained in the northern divisions, and thus the south-west monsoon winds have not been able to exert their full force on such divisions as North Bengal and North Behar, and it is possible that their deficient rainfall may be thus accounted for.

The deficiency in the rainfall during this month was then most marked in the following districts:—In the Darjeeling district the defect from the normal value was about 12 inches; in the Rungpore and Purneah districts the defect averaged 5 inches; in the Bogra, Dinapore, Backergunge and Cooch Behar districts the defect was about 4 inches; and in the Mozufferpore district about 3 inches. Some parts also of the following divisions have suffered from deficiency of rain:—Nuddea, Chittagong and Chittagong Hill Tracts, Mymensing and Durbhangha. The remainder of the Province, with these exceptions, has received ample rain, while in some cases as at Ranigunge, Burdwan, &c., there have been centres of abnormally heavy rainfall.

The following table gives a summary of the rainfall and temperature data for the seven meteorological divisions of the Province:—

METEOROLOGICAL DISTRICT.	TEMPERATURE.										RAINFALL.											
	Highest observed during month.			Lowest observed during month.			Average for month.				Average mean of month above or below normal mean month.			Of month.			Rainy days.			Since 15th May.		
	Highest of month.	Lowest of day.	Mean for each day.	Lowest of day.	Mean for each day.	Highest of month.	Average.	Normal average.	Variation.	Average number in month.	Normal average number.	Variation.	Average.	Normal average.	Variation.	Average.	Normal average.	Variation.	Average.	Normal average.		
Orissa	93·4	72·1	86·4	78·4	82·4	-1·2	13·73	13·17	+0·56	19·4	17·6	+1·8	33·41	23·38								
South-West Bengal	94·6	71·2	88·8	78·5	83·7	-0·4	14·55	12·28	+2·27	20·8	19·8	+1·0	26·46	25·33								
East Bengal	94·3	69·8	86·2	77·8	82·1	-0·6	17·17	16·70	+0·47	22·3	22·2	+0·1	41·32	41·32								
North Bengal	97·8	74·1	90·4	78·7	81·5	-1	11·00	14·12	-3·12	17·4	18·4	-1·0	29·32	38·23								
North Behar	99·0	74·0	89·6	78·8	84·2	+0·9	10·22	12·40	-2·27	15·6	15·6	0	25·18	22·31								
South Behar	101·9	68·0	89·8	77·1	83·5	-0·8	12·50	12·17	+0·33	18·3	17·6	-0·7	24·74	20·08								
Chutia Nagpur	89·5	71·2	83·6	73·8	78·7	-0·6	14·67	13·06	+1·61	19·9	18·9	+1·0	24·67	22·94								

METEOROLOGICAL OFFICE, BENGAL,

ALEXANDER PEDLER, F.C.S.,

The 13th August 1883,

Offg. Meteorological Reporter to the Govt. of Bengal.

## Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.	DISTRICT.	Representative station.	STATION OBSERVATIONS.														
			AIR PRESSURE.			WIND.		TEMPERATURE.							Mean daily temperature of week.	Variation from normal of week.	Mean 10 A.M. temperature.
			Mean barometric height, 10 A.M.	Mean reduced to sea-level.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest during week.	Lowest during week.	Mean maximum temperature.	Mean minimum temperature.	Mean temperature of week.					
ORISSA.	Pooree	Gopalpore	29°066	29°716	—	S	219	85°6	80°8	85°6	81°9	83°8	—	84°3	84	6°0	
		False Point	29°688	29°700	+°060	SW, WSW	180	91°4	76°1	86°3	77°1	81°8	+1°0	86°1	78	7°7	
	Cuttack	Cuttack	29°636	29°716	+°068	SW	48	92°4	70°8	91°6	78°0	84°8	+1°5	86°7	74	7°3	
	Balasore	Balasore	29°617	29°675	—	SW	141	91°4	76°7	89°8	78°6	83°9	—	85°4	80	5°9	
	South-West Midnapore	Saugor Island	29°665	29°691	+°014	SW	309	90°2	76°0	88°6	79°7	84°2	+0°7	83°5	86	8°1	
	Midnapore	Midnapore	29°544	29°678		SW, W	?	93°5	73°8	89°9	76°9	83°4	—	84°9	79	8°4	
	24-Pergunnahs	Howrah	29°646	29°668	+°072	SW, W	134	89°5	77°7	87°7	79°6	83°7	+1°0	84°1	82	9°4	
	Hooghly	Calcutta	29°646	29°668	+°072	SW, W	134	89°5	77°7	87°7	79°6	83°7	+1°0	84°1	82	9°4	
	Burdwan	Burdwan	29°561	29°661	+°026	S, variable.	86	91°6	76°4	88°9	78°7	83°8	+0°2	83°4	82	9°4	
	Bankura	Bankura	29°285	—	—	Variable	104	92°5	76°8	89°9	78°5	84°2	—	83°9	81	6°4	
SOUTH-WEST BENGAL.	Beerbhoom	Raniganj	29°635	29°670	+°022	S	75	91°8	77°9	88°9	79°9	84°4	+0°8	85°6	84	8°3	
	West Burdwan	West Burdwan	29°583	29°650	+°001	SW	147	85°6	74°0	83°0	75°9	70°4	+2°0	81°8	90	9°1	
	Moorshedsabad	Moorshedsabad	29°633	29°650	+°001	SW	147	90°1	76°9	86°7	79°1	82°9	+1°4	83°6	87	10°0	
	Nuddea	Nuddea	29°637	29°670	+°022	S	75	91°8	77°9	88°9	79°9	84°4	+0°8	85°6	84	8°3	
	Jessore	Jessore	29°637	29°670	+°022	SE	147	85°6	74°0	83°0	75°9	70°4	+2°0	81°8	90	9°1	
	Khoolna	Jessore	29°637	29°670	+°022	S	75	91°8	77°9	88°9	79°9	84°4	+0°8	85°6	84	8°3	
	Chittagong	Chittagong	29°635	29°744	+°042	SE	147	85°6	74°0	83°0	75°9	70°4	+2°0	81°8	90	9°1	
	Chittagong Hill Tracts	Demagri	29°635	29°744	+°042	Observations not received.											
	Backergunj	Barrisal	29°600	—	—	S & SSW	257°9	87°1	79°3	85°1	80°3	82°7	—	83°3	92	6°3	
	Noakholly	Noakholly	—	—	—	—	—	87°2	77°2	85°1	77°9	81°5	—	81°3	91	9°8	
EAST BENGAL.	Furreedpore	Furreedpore	29°625	—	—	SSE, SSW	139°7	88°5	76°9	86°9	79°8	83°4	—	83°5	87	8°9	
	Dacca	Dacca	29°639	29°675	+°018	S	117	89°8	78°2	87°4	79°3	83°3	+0°1	83°7	90	9°7	
	Commillah	Commillah	29°670	29°709	—	SE	?	92°6	66°3	83°2	75°7	79°5	—	81°5	88	7°0	
	Mymensingh	Mymensingh	29°637	—	—	SES	137	88°3	75°6	86°8	77°3	81°8	—	82°1	89	9°9	
	Bogra and Pubna	Serajgunj	29°606	—	—	SE	158	89°4	74°7	86°9	77°7	82°3	—	83°5	87	9°6	
	Rajshahiye	Rampore Beauleah	29°530	29°604	—	SW & W	264	90°6	73°6	88°6	77°3	83°7	—	84°3	82	6°6	
	Dinagepore	Dinagepore	29°493	—	—	S & V	130	91°6	76°1	89°5	78°0	83°8	—	81°7	82	7°0	
	Rungpore	Rungpore	29°530	—	—	Variable	144	91°8	73°6	87°8	77°1	82°5	—	81°9	90	9°4	
	Julpigoree	Julpigoree	29°323	—	—	ENE	144	89°0	74°1	85°2	75°2	80°2	—	77°6	95	9°7	
	Cooch Behar	Cooch Behar	29°633	—	—	Variable	54	68°6	55°6	65°3	57°5	64°3	—	62°6	96	9°6	
NORTH BENGAL.	Darjeeling Hill Districts	Darjeeling	22°885	—	—	Variable	54	68°6	55°6	65°3	57°5	64°3	—	62°6	96	9°6	
	Purneah	Purneah	29°496	29°622	+°001	Variable	38	93°2	74°8	88°3	77°4	82°9	+1°6	91°8	91	9°7	
	Mozufferpore	Durbhunga	29°466	29°632	+°061	Variable	82	92°4	76°0	88°3	79°6	84°0	+0°4	84°3	88	6°0	
	Chumparun	Mothiari	—	—	—	SE & variable	?	88°6	76°4	85°5	78°7	82°1	—	86°9	77	2°4	
	Sarun	Chupra	29°433	—	—	W	41	93°5	78°5	89°5	81°1	85°3	—	87°6*	95	5°3	
	Shahabad	Dehree	29°298	29°649	—	W, WSW	?	90°9	72°0	87°7	74°6	81°1	—	82°1	67	5°3	
	Arrah	Arrah	29°419	—	—	SW	134	94°4	78°6	88°7	80°0	84°7	—	86°2	77	5°6	
	Gya	Gya	29°256	29°631	+°019	W	89	95°2	73°3	90°1	74°4	82°3	+1°8	86°4	75	4°6	
	Patna	Bansipore	29°445	29°627	+°005	NW & V	72	96°0	78°7	93°2	80°8	87°3	+0°9	87°0	76	8°0	
	South Bhagulpore	Bhagulpore	29°447	29°580	—	Variable	82	92°9	77°5	89°4	79°1	84°3	—	84°4	83	6°4	
CHOTA NAGPUR.	Monghyr	Doomka	29°132	—	—	NW & C	—	91°1	74°8	88°0	76°4	82°1	—	83°3	90	3°1	
	Hazaribagh	Hazaribagh	27°669	29°658	+°043	NW	189	88°5	72°6	82°6	73°3	78°0	+0°6	73°8	78	10°0	
	Lohardugga	Ranchee	27°563	29°673	—	--	—	86°5	68°4	83°0	70°8	76°9	—	78°2	82	8°9	
	Manbhoom	Chybhassa	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Singhbhoom	Chybhassa	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

*Explanation of Summary.*—The normal means of air pressure and temperature are the arithmetical averages or means of the readings during the same observations. The "humidity of the atmosphere is expressed as a percentage, saturated air being represented by 100. A clear sky is denoted by 0 and an overcast sky from that district, (i.e.) the total rainfall at the sub-divisional stations in the district sending in returns divided by the number of stations. A rainy day is denoted by 100 and a dry day by 0. The "rainfall," the normal means are the numerical means or averages of the rainfall in that district determined from the returns sent in by the sub-divisions.

for the week ending 10th August 1883.

Rainfall of week at observing station.	DISTRICT OBSERVATIONS.												METEOROLOGICAL DIVISION.	
	RAINFALL.													
	Of week.		Since 1st of month.			Since 15th May.			Average number of rainy days during the week.	Normal number of rainy days of week.	Representative station.	DISTRICT.		
	Mean for district.	Normal mean for district.	Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.						
1'27											Gopalpore	...		
6'05	3'92	3'05	4'48	5'01	-0'53	30'22	27'91	+8'31	5'0	4'1	False Point	...	Pooree	
2'74	2'47	3'03	3'08	4'56	-1'47	33'82	28'14	+5'68	3'7	3'6	Cuttack	...	Cuttack	
1'12	2'21	2'71	3'34	4'38	-1'04	34'81	27'86	+6'96	4'3	4'1	Balasore	...	Balasore	
1'01	1'40	3'95	1'96	4'92	-2'96	32'98	32'30	+0'68	2'7	4'6	Saugor Island	...	South-West Midnapore	
4'86	3'92	3'34	8'79	4'50	+4'29	29'09	28'66	+1'33	3'3	4'0	Midnapore	...	South 24-Pergunnahs	
1'81	1'96	3'22	4'27	4'47	-0'20	32'08	29'51	+2'57	3'6	4'7	Calcutta	...	24-Pergunnahs	
3'30	1'86	3'00	5'24	4'12	+1'12	35'37	25'89	+9'48	4'3	4'1	Burdwan	...	Howrah	
1'15	4'46	3'07	6'71	4'26	+2'45	38'53	29'58	+8'95	4'6	4'5	Raniganj	...	Hooghly	
4'03	3'15	2'87	4'03	4'43	-0'40	29'06	26'93	+2'13	4'4	4'1	Berhampore	...	Bankura	
1'86	2'88	3'91	3'81	+0'10	25'33	27'97	-2'64	3'7	4'0	...	...	Beerbhoem	...	
2'74	3'01	3'07	4'93	4'41	+0'52	30'01	31'99	-1'98	3'7	4'5	Jessore	...	West Burdwan	
8'12	12'53	5'27	15'78	7'51	+8'27	97'48	74'10	+23'38	7'0	5'1	Chittagong	...	Moorshedabad	
7'36	3'87	9'00	5'73	+3'27	41'79	47'96	-6'17	6'0	5'3	Demagri	...	Nuddea		
4'14	4'50	4'10	6'19	5'68	+0'43	40'11	49'39	-9'28	5'8	5'5	Barrisal	...	Chittagong Hill Tracts	
9'65	10'80	6'54	11'83	8'39	+3'44	78'58	65'84	+12'74	7'0	8'9	Noakhally	...	Backergunj	
4'68	3'38	2'97	4'27	4'37	-0'10	31'26	34'58	-3'12	5'0	4'5	Furreedpore	...	Noakhally	
2'39	4'38	3'54	5'15	5'25	-0'10	34'39	37'54	-3'15	6'0	4'3	Furreedpore	...	Dacca	
6'54	4'58	3'90	5'87	5'86	+0'01	43'34	42'67	+2'07	6'5	5'1	Commillah	...	Commillah	
3'26	4'54	2'50	5'11	3'73	+1'38	31'16	40'39	-9'23	6'0	4'7	Mymensingh	...	Mymensingh	
4'14	3'82	2'61	4'24	3'41	+0'83	28'81	32'33	-3'52	6'2	3'9	Serajgunj	...	Bogra and Pabna	
1'99	2'26	2'41	2'93	3'81	-0'88	23'68	29'50	-5'82	6'3	4'4	Rampore Beauleah	...	Dacca	
4'38	3'42	2'88	4'10	3'36	+0'74	26'59	34'14	-7'55	5'0	4'2	Dinagepore	...	Rajshahye	
7'97	6'91	1'95	7'04	2'88	+4'16	31'31	47'61	-16'30	6'3	3'7	Dinagepore	...	Dinagepore	
17'49	21'82	4'16	22'29	5'16	+17'13	72'27	67'12	+5'15	7'0	4'7	Rungpore	...	Rungpore	
4'38	15'61	7'61	18'49	9'60	+8'89	97'36	94'62	+2'74	6'5	5'6	Julpigoree	...	Julpigoree	
5'85	2'86	3'51	3'61	4'36	-0'75	30'34	32'20	+4'14	5'2	4'0	Cooch Behar	...	Cooch Behar	
4'94	3'37	2'56	6'01	3'18	+2'83	31'78	23'12	+8'66	4'2	3'4	Darjeeling	...	Darjeeling Hill Districts	
3'36	2'86	2'56	4'78	2'96	+1'79	22'89	24'71	-1'82	4'7	3'2	Purneah	...	Purneah	
1'51	1'70	2'52	3'23	3'33	-0'10	28'14	22'80	+5'34	1'5	3'4	North Bhagulpore	...	North Bhagulpore	
0'40	0'88	2'88	2'78	4'31	-1'53	22'41	22'18	+0'28	1'3	3'5	Mozufferpore	...	Mozufferpore	
0'29	0'77	2'92	3'22	4'21	-0'99	30'84	23'24	+7'70	1'5	3'2	Durbhunga	...	Durbhunga	
1'76	1'53	2'53	4'26	3'50	+0'76	34'22	22'42	+11'80	3'3	3'3	Chumparun	...	Chumparun	
4'32	3'41	2'86	5'49	4'00	+0'49	27'61	23'90	+3'71	3'4	3'8	Patna	...	Sarun	
4'09	2'34	3'15	3'61	4'18	-0'57	29'00	28'33	+0'67	4'5	4'0	Dehree	...	Dehree	
2'59	3'44	3'39	4'25	5'01	-0'76	28'30	27'98	+0'32	4'3	3'7	Shahabad	...	Shahabad	
3'34	2'88	3'54	6'73	5'33	+1'40	33'82	28'63	+5'19	4'0	4'3	Arrah	...	Arrah	
2'98	4'43	9'61	6'25	+3'36	35'98	33'76	+1'32	5'0	5'1	Gya	...	Gya		
											Bankipore	...	Bankipore	
											South Bhagulpore	...	South Bhagulpore	
											Monghyr	...	Monghyr	
											Sonthal Pergunnahs	...	Sonthal Pergunnahs	
											Hazaribagh	...	Hazaribagh	
											Lohardugga	...	Lohardugga	
											Manbuoom	...	Manbuoom	
											Singhboon	...	Singhboon	
											Chyebassa	...	Chyebassa	

period for the past 12 years. The variations are *negative* when the mean for the week is less than the corresponding normal mean and *positive* when greater. The number denoting cloud amount represents the part of the sky covered, the whole sky being denoted by 10. Under the head "district observations" are the numerical averages of the rainfall returns received from the various stations for the period in question during the past 12 years. The "means for the district" are the numerical averages of the rainfall returns received by one on which at least an hundredth of an inch fell.

## Statement of Rainfall in Bengal for the week ending Friday (6 p.m.), the 10th of August 1883.

Meteorological division.	District.	Station.	RAINFALL.							Total.		Average total rainfall from 1st to 10th August.	Total rainfall since 15th May.	Average rainfall from 15th May to date.	
			Saturday, 4th August.	Sunday, 5th August.	Monday, 6th August.	Tuesday, 7th August.	Wednesday, 8th August.	Thursday, 9th August.	Friday, 10th August.	Number of rainy days.	Rainfall of week.				
ORISSA	Pooree	Pooree	0'08	0'48	.....	.....	.....	.....	.....	2	0'56	1'50	4'34	34'25	24'15
		Khurdah	1'15	0'44	0'45	2'45	1'05	0'30	0'04	5	5'86	6'92	5'06	41'31	29'85
		Banpur	.....	2'20	.....	1'00	.....	1'75	.....	3	5'95	5'95	5'79	33'04	26'99
		False Point	0'18	2'25	0'84	1'03	.....	1'75	.....	5	6'05	6'29	4'82	42'33	30'73
		Hookitola	0'17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cuttack	Jagatsingapore	.....	0'40	.....	.....	1'20	0'10	0'50	.....	4	2'20	3'30	3'89	.....	23'11
		Banki	.....	0'45	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
		Cuttack	.....	0'02	0'28	.....	0'05	1'93	0'07	5	2'35	2'40	5'05	44'79	30'56
		Kendrapara	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5'59	27'87	.....
		Jajpore	.....	.....	.....	.....	0'60	2'26	.....	2	2'86	2'96	3'67	35'99	30'95
Balasore	Chandballi	.....	0'16	0'15	0'45	.....	.....	0'90	.....	.....	.....	.....	4'69	26'36	.....
		Bhuddruck	.....	0'49	0'36	.....	.....	0'21	.....	3	1'26	2'64	4'13	33'18	29'07
		Sorah	.....	0'80	1'50	0'10	.....	0'70	.....	4	3'10	3'25	4'60	32'92	26'73
		Balasore	.....	2'40	0'39	.....	0'20	0'30	1'76	5	5'05	5'37	4'83	37'47	28'75
		Je lasore	0'40	0'48	.....	.....	0'11	0'30	.....	4	1'29	1'81	3'80	34'95	28'55
SOUTH-WEST BENGAL	Midnapore	Baripodah	0'08	0'19	0'39	0'01	0'18	0'04	.....	6	0'89	5'22	3'65	31'90	28'03
		Contai	.....	.....	1'51	0'48	0'22	.....	.....	3	2'21	2'45	4'78	37'43	31'64
		Saugor Island	.....	.....	0'84	.....	0'17	.....	.....	2	1'01	1'10	5'41	35'40	33'36
		Tumlook	.....	.....	1'20	.....	0'50	.....	.....	2	1'70	2'20	4'67	32'40	27'79
		Midnapore	0'21	2'78	1'13	.....	0'19	.....	.....	4	4'31	9'65	4'36	26'89	27'55
24 Pergunnahs	Diamond Harbour	Ghatal	1'10	3'04	1'45	.....	0'17	.....	.....	4	5'76	9'54	4'48	31'90	30'96
		Alipore Jail	.....	0'23	.....	1'54	.....	.....	2	1'77	3'47	4'31	29'65	30'71	
		Harrackpore	0'28	.....	0'66	.....	0'60	.....	.....	3	1'52	3'24	4'26	30'21	29'89
		Dum-Dum	.....	.....	0'15	.....	0'12	.....	.....	2	0'27	1'34	4'15	28'75	29'24
		Banset	0'07	0'33	.....	0'13	.....	.....	3	0'53	1'38	4'42	23'07	28'99	
Howrah	Buseerhat	.....	.....	2'64	0'98	.....	.....	.....	3	3'65	5'48	4'69	44'11	31'21	
		Howrah	.....	0'45	0'24	0'07	0'30	.....	4	1'06	2'56	4'45	27'30	29'83	
		Mohesreka	0'87	0'02	.....	0'46	.....	.....	3	1'35	5'87	5'03	30'48	31'16	
		Hooghly	0'15	0'19	0'50	.....	1'22	.....	4	2'06	3'03	4'37	30'87	28'93	
		Hooghly	0'77	0'12	0'09	0'07	0'78	0'47	.....	6	2'31	5'46	4'19	37'10	27'34
Burdwani	Culna	Jehanabad	1'37	0'61	2'50	0'30	.....	0'07	0'18	6	5'03	10'78	4'89	34'00	30'03
		Burdwan	.....	0'11	1'68	1'35	.....	0'05	0'01	6	3'31	5'11	4'17	41'99	25'78
		Cutwa	0'02	.....	0'55	0'20	0'31	.....	0'15	5	1'23	5'89	4'34	36'41	26'54
		Raneeungunge	0'05	.....	0'88	.....	0'14	.....	0'64	4	1'71	2'77	4'47	48'37	25'71
		Bankoora	0'46	1'10	2'60	.....	1'85	0'12	0'07	6	6'20	7'20	5'25	34'54	28'99
Bankoora	Bankoora	Bishenpore	1'42	3'04	3'08	.....	.....	1'14	4	8'68	9'69	4'25	34'54	30'45	
		Malisra	0'40	.....	1'95	2'33	.....	0'12	.....	4	4'80	5'84	4'21	32'18	28'14
		Khatra	2'50	0'19	2'90	.....	.....	1'69	0'11	5	6'13	7'84	3'29	32'39	33'81
		Beerbhoom	Rh. Soory	0'60	0'42	0'32	.....	0'11	0'27	6	1'74	10'02	4'31	42'10	28'91
		Hetampore	.....	0'89	.....	0'32	.....	0'72	3	1'93	3'61	4'07	30'93	31'84	
Nudden	Rongong	.....	0'30	0'40	.....	1'09	.....	.....	3	1'79	5'49	4'95	30'54	20'73	
		Ranaghata	0'66	0'50	0'06	0'26	.....	.....	4	1'47	7'52	4'66	37'54	26'68	
		Kishnaghur	0'49	.....	0'36	.....	.....	.....	2	0'85	1'41	3'71	16'04	25'66	
		Choondanga	0'30	.....	1'45	.....	0'48	.....	3	2'23	2'80	3'66	18'42	28'57	
		Meherpore	0'36	0'19	.....	1'30	.....	0'53	4	2'38	2'70	3'37	22'80	26'56	
Khoolna	Satkira	Kooshtea	0'15	0'18	0'12	0'84	0'06	.....	1'11	6	2'46	3'47	2'82	27'23	26'69
		Bagirhat	0'37	0'61	1'90	0'02	.....	.....	3	2'20	4'37	4'12	41'25	31'44	
		Khoolna	0'30	0'61	2'95	0'06	.....	.....	4	7'53	9'74	4'86	33'56	38'06	
		Jhendihah	0'48	0'21	0'35	0'36	.....	0'10	3	3'18	4'53	4'62	33'08	32'81	
		Magoorah	0'48	0'80	0'33	0'22	.....	.....	4	1'83	3'28	4'08	33'05	29'61	
Moorschedabad	Kandi	.....	5'78	0'08	.....	0'10	0'56	4	6'52	7'52	4'19	35'56	23'76		
		Rampore Hauz	0'58	0'64	.....	1'53	.....	1'37	4	4'13	6'71	4'93	30'24	21'77	
		Berhampore	0'13	1'55	0'13	.....	1'23	0'18	.....	5	3'24	3'68	4'93	27'55	28'45
		Lalbagh	.....	1'10	.....	0'62	.....	0'21	3	1'93	2'51	3'30	25'60	24'59	
		Azimgunge	0'25	1'41	0'30	0'01	0'15	0'63	0'06	7	2'21	2'47	4'63	29'26	27'65
EAST BENGAL	Chittagong	Jungipore	1'39	1'59	.....	0'65	0'15	0'65	0'17	5	2'39	3'06	2'38	25'55	26'70
		Lalgola	0'54	0'17	0'60	.....	0'15	.....	5	1'63	2'24	4'48	27'24	26'91	
		Cox's Bazar	0'57	0'73	0'75	3'90	1'11	3'76	5'29	7	10'11	19'76	8'90	109'69	91'33
		Chittagong	0'78	0'53	1'57	0'78	1'23	3'68	0'35	7	8'94	11'80	6'12	83'46	56'79
		Rangamati	.....	0'32	0'41	0'89	1'48	4'08	0'18	6	7'36	8'54	7'64	41'68	51'74
Backergunge	Rums	Agartola	.....	0'14	0'86	0'70	0'70	0'04	0'55	6	2'99	3'99	4'47	36'96	35'42

## Statement of Rainfall in Bengal for the week ending Friday (6 p.m.), the 10th of Aug. 1883—concluded.

Meteorological division.	District.	Station.	RAINFALL.							TOTAL.		Total rainfall from 1st to 10th August.	Average total rainfall from 1st to 10th August.	Total rainfall since 15th May.	Average rainfall from 15th May to date.		
			Saturday, 4th August.	Sunday, 5th August.	Monday, 6th August.	Tuesday, 7th August.	Wednesday, 8th August.	Thursday, 9th August.	Friday, 10th August.	Number of rainy days.	Rainfall of week.						
NORTH BENGAL	Pubna	Pubna Serajunge	0'36	0'22	0'05	0'90	0'05	.....	0'81	6	2'39	2'76	3'26	2'18	29'16	29'67	
	Bogra	Sherpore Nowkhilla	0'22	0'98	1'25	0'60	1'90	0'37	1'19	7	6'51	6'94	4'22	2'43	36'94	36'94	
		Bogra Panchbibi	0'07	0'27	0'58	0'07	0'17	0'34	1'65	7	3'15	3'51	3'60	20'90	32'50	33'35	
	Rajshahiye	Beuleah Nattore	0'10	0'43	1'31	0'60	0'11	0'03	.....	6	2'58	3'42	3'16	20'89	33'30	31'71	
	Maldah	Maldah	0'47	0'34	0'12	0'28	0'06	.....	0'05	6	1'33	1'91	3'39	24'52	28'42	28'42	
	Dinapore	Mohadebpore Churammon	1'10	0'23	0'26	1'50	0'28	.....	0'08	6	3'44	4'99	4'45	23'60	37'48	37'48	
		Kraigunge	1'06	0'69	0'47	.....	0'06	.....	0'26	5	3'25	3'87	2'70	25'63	27'14	27'14	
		Dinapore Baloorghat	0'51	0'80	0'79	0'04	2'11	.....	0'15	6	2'54	2'85	3'05	24'49	34'30	34'30	
	Rungpore	Shawanigunge Rungpore	0'26	2'73	0'23	0'09	.....	0'05	.....	5	3'30	8'23	2'11	38'60	49'28	49'28	
		Kurigram Baguogra	0'17	0'60	3'50	1'60	0'40	0'30	0'80	7	7'37	7'37	1'81	34'37	57'06	57'06	
	Julpigoree	Julpigoree	2'98	5'60	2'83	1'93	1'74	0'97	3'84	7	19'83	21'40	6'19	80'26	67'18	67'18	
NORTH BHAR	Cooch Behar	Dinhatta Cooch Behar	0'29	3'55	2'85	0'37	1'97	0'52	2'82	7	12'37	12'53	3'74	50'43	59'93	59'93	
		Micklingunge	0'25	4'80	4'42	1'65	0'63	4'37	0'04	7	25'16	25'16	6'37	82'46	73'54	73'54	
		Matabnanga	5'00	6'00	2'12	0'55	0'43	2'25	4'97	7	22'32	22'75	5'19	69'04	63'00	63'00	
	Darjeeling Hill	Buxa Sillinguri	2'32	6'16	4'78	.....	0'86	1'62	7'73	6	23'47	25'68	11'60	112'69	123'57	123'57	
		Parjeeling Kalimpong	0'22	1'73	0'45	0'76	0'51	0'30	3'60	7	7'57	11'12	7'60	71'98	65'60	65'60	
	Purneah	Kissengunge Arraresh	0'41	.....	0'90	0'18	0'87	0'51	1'51	6	4'30	5'90	4'28	40'95	39'83	39'83	
		Purneah	0'56	1'08	1'40	.....	0'90	.....	0'92	0'88	4	3'94	4'24	3'89	41'13	36'20	36'20
	North Bhagulpore	Maddapore Soopool	0'90	0'38	0'05	0'33	0'55	0'08	.....	6	2'29	2'94	4'45	63'66	23'64	26'51	
	Durbhunga	Fajpore Durbhunga	0'55	1'15	.....	0'12	1'70	1'55	7'73	7	1'70	7'23	3'55	32'91	23'18	23'18	
		Nadhubani	0'87	2'42	1'45	0'05	0'05	0'25	0'17	7	4'79	5'88	3'12	32'66	23'96	23'96	
SOUTH BHAR	Mozafferpore	Sitamarhi Mozafferpore	0'03	3'22	0'23	2'50	.....	1'54	0'09	6	7'61	9'20	2'58	24'24	22'78	22'78	
		Hajipore	0'30	0'20	1'45	0'05	.....	.....	0'25	7	2'09	4'32	3'40	31'22	23'58	23'58	
	Chumparum	Motihari Bettiah	2'65	0'32	0'45	0'48	0'17	.....	0'04	5	4'07	5'94	3'30	23'79	22'72	22'72	
		Gopalgunge	1'30	0'09	0'55	0'27	0'36	0'39	0'04	7	3'00	4'01	3'24	23'67	26'70	26'70	
		Sewaih Chuprah	0'55	.....	0'96	.....	.....	.....	.....	2	1'51	4'40	2'42	21'23	24'08	24'08	
	Shahabad	Buxar Dehree	0'06	2'00	1'27	.....	.....	.....	.....	5	2'07	2'61	2'38	25'28	24'66	24'66	
		Bhuboosh Sarsaram	.....	0'12	.....	.....	.....	.....	.....	1	0'13	2'82	4'61	19'98	23'13	23'13	
	Gya	Aurungabad Gya	0'84	.....	.....	.....	.....	.....	.....	1	0'84	2'64	4'65	25'83	23'93	23'93	
		Nowdah Jehanabad	0'17	0'04	0'08	.....	.....	.....	.....	3	0'29	4'16	4'27	39'33	33'92	33'92	
	Patna	Patna Dinapore	0'14	0'38	0'33	0'05	0'57	0'80	.....	5	1'47	3'43	3'56	27'61	23'15	23'15	
CHUTIA NAG- PORE	Monghyr	Begooresai Monalipur	0'55	0'88	0'57	0'42	.....	.....	.....	3	1'73	2'79	4'36	21'13	25'32	25'32	
		Jamui	1'30	.....	1'05	0'60	.....	.....	.....	2	2'35	4'97	4'24	20'06	25'00	25'00	
	South Bhagulpore	Bhagulpore Banka	0'31	1'78	4'18	0'38	0'38	.....	.....	4	6'65	9'11	3'39	32'48	23'10	23'10	
	Sonthal Per-gunnaps.	Rajmehal Godda	0'64	0'16	0'64	0'43	0'43	.....	.....	4	0'87	1'21	3'19	18'33	28'70	28'70	
		Pakour Ny Doonka	1'35	0'12	0'57	0'40	0'40	.....	.....	3	2'64	4'03	5'11	23'74	26'50	26'50	
		Deoghar Jamura	0'89	1'19	1'42	0'21	0'68	0'01	0'18	7	2'44	3'31	2'27	35'97	27'28	27'28	
		Jantra	0'13	1'69	0'16	0'93	0'09	.....	.....	5	3'98	4'09	5'89	33'98	30'54	30'54	
	Hazaribagh	Pachamba Hazaribagh	0'10	3'10	1'50	0'10	.....	.....	.....	4	1'99	2'11	4'71	33'21	28'49	28'49	
		Semtaguri Mahudi Hills	1'30	0'12	0'55	0'09	0'40	.....	.....	4	3'92	5'72	4'75	21'70	25'74	25'74	
	Lohardugga	Ranchi Palanow	1'01	.....	1'41	0'07	0'07	.....	0'15	4	2'64	7'21	6'06	43'29	29'00	29'00	
Singbhamo	Chyebassa	Chyebassa	0'04	0'54	2'34	.....	0'02	0'04	.....	5	2'98	9'61	6'25	35'08	31'37	31'37	
		Purnia	0'55	1'18	1'92	.....	.....	.....	0'05	3	3'70	10'02	5'33	41'73	25'01	25'01	
		Gobindpore	1'00	0'63	0'61	0'06	.....	.....	0'12	5	3'12	4'97	5'57	24'16	27'49	27'49	

*Explanation.*—Indicates that no rain has fallen. If the return for any day has not been received, the corresponding space is left blank. If some of the returns are wanting, the corresponding spaces in the total rainfall columns are left blank.

**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL FOR THE WEEK ENDING FRIDAY, 10TH AUGUST 1883.**

THE meteorological history of the past week has been more or less uneventful, as the weather has been to a certain extent fairly normal in character in Bengal. There have been no cyclonic vortices generated at the head of the Bay, as had been the case in each previous week since the commencement of the monsoon rains, and thus there have not during the past week been the well marked and almost sudden changes of meteorological conditions, together with the heavy inrushes of moist winds over the land area, especially over the southern and western portions of the Province, which have been so characteristic of most of the earlier weeks of this monsoon. The variations then in the conditions for the week have resulted almost wholly from the variations in the effects, probably both simple and combined, of the two great monsoon currents, the more important are derived from the Bay of Bengal, and the other from the Arabian Sea. During normal monsoon weather in July in Bengal, it is probable that the effect of the Arabian Sea current is felt in the western districts of Chutia Nagpur as a more or less westerly wind, but that its effect cannot be distinctly traced even in the easterly parts of this division in ordinary years, while the Bay of Bengal current, as a southerly and even in some cases a south-easterly wind, supplies the greater part of the moist winds which give general rain over the whole of the Province of Bengal. As has been pointed out in previous reports, however, the two branches of the monsoon currents moving in different directions must, over the area where they meet, produce a certain amount of ascensional movement of the air, and thus cause precipitation of rain more or less heavy in amount.

At the close of the last weekly report, it was shown that the two branches of the monsoon current were more or less normal in character and force, and this state of affairs continued on the 4th instant. On the following day, however, the Bombay branch of the current increased in strength, and westerly winds prevailed in Chutia Nagpur and South Behar. With the advance of the westerly winds the Bay of Bengal current appeared to be forced towards Eastern and Northern Bengal, and the result of the combination of this effect with the intermingling of the two currents was to produce heavy and very general rain over the whole Province. The westerly winds over the greater part of the Province, and the heavy general rain continued on the 6th; and on the 7th, with the gradual retreat of this westerly current, the rainfall over the southern and central districts decreased, though in East and North Bengal the Bengal current was continuing to give a considerable amount of rain. At this time there was a very rapid increase of pressure, especially in North Behar; the winds began to fall off in velocity, and on the 8th instant a more or less pronounced break in the rains was established, which was distinctly marked in Behar and in Chutia Nagpur. The break in the rains continued on the 9th instant, and extended to a part of Central and South-West Bengal, though in Eastern and Northern Bengal rain still continued to fall. On the 9th instant the barometer commenced to fall rapidly, and on the 10th wind velocities were increasing, and the area of rainfall enlarging, though it had not extended fully to Behar and Chutia Nagpur. At the close of the week, the Bay of Bengal monsoon current still appeared to be somewhat weak, while from the strong westerly winds which prevailed in Behar and Chutia Nagpur, it would appear that the Bombay monsoon current was still affecting these districts somewhat strongly. At the close of the week also the tendency of the winds over Bengal was to set up a cyclonic circulation.

Pressure has been almost continuously above the normal throughout the week. The average excess has varied from 0.072" at Calcutta to .001," or practically a normal pressure at Purneah. In the middle of the week at North Behar (Durbhangha) the pressure was nearly two-tenths above the normal. Temperature on the whole has been nearly normal, though if anything a little in defect. It has of course varied somewhat from day to day, but until the close of the week the variations were more or less alternating. With the establishment, however, of the break in the rains above referred to, temperature rose somewhat rapidly, and in Behar and South-West Bengal, particularly at the close of the week, temperature was above the normal by amounts varying from 5° down to about 2°. Patna has again registered the maximum temperature of the week (96°), and this station has reported the maximum daily temperature almost continuously every day. Westerly winds have again been a strongly pronounced feature in the wind directions of Behar, Chutia Nagpur, Orissa, and South-West Bengal, and, as pointed out above, they have materially influenced the meteorology and rainfall of the week.

The following table gives a summary of the temperature and rainfall data for the seven meteorological divisions of the Province:—

METEOROLOGICAL DISTRICT.	TEMPERATURE						RAINFALL.						
	Highest observed during week.	Lowest observed during week.	Average for week.			Average mean of week above or below normal mean week.	Of week.	Rainy days.	Since 1st of month.	Since May 15th.			
			Highest of each day.	Lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in week.	Normal average num. ber.	Variation.	Average.
Orissa	92.4	76.1	88.2	78.9	83.6	+0.3	3.01	2.90	+0.11	4.2	4.0	+0.2	3.63
South-West Bengal	... 93.5	73.8	88.7	78.9	83.8	-0.3	2.75	3.18	-0.37	3.8	4.4	-0.6	4.83
East Bengal	92.6	66.3	85.3	78.0	81.7	-1.1	5.82	3.89	+1.96	6.0	5.9	+1.0	7.10
North Bengal	91.8	73.6	87.4	77.1	82.8	-	8.11	2.86	+5.25	6.0	4.2	+1.8	8.59
North Behar	93.5	74.8	87.9	79.2	83.6	-0.6	2.91	2.85	+0.06	4.2	3.6	+0.6	4.69
South Behar	96.0	72.0	89.4	78.0	83.7	-0.5	1.87	2.89	-1.0	3.0	3.6	-0.6	5.89
Chutia Nagpur	88.5	68.4	82.8	72.1	77.5	-0.6	3.40	3.37	-0.47	4.2	0	6.16	5.28

The rainfall for the past week has been over the whole area of the province about equal in quantity to that of the previous week, but the distribution has been very different. While in the previous week, Orissa, East Bengal, and North Bengal were receiving a rainfall below the normal, in the past week the same divisions have received an excess fall. Again, in the previous week South-West Bengal, North and South Behar and Chutia Nagpur received an excess fall, while during the past week all these divisions, except North Behar, were in defect. The two weeks have therefore been more or less compensatory in their effects. Taking the whole area into consideration, the rainfall has been above the average, for while the excess rainfall in some areas has been large, the defect has in all cases been comparatively small.

The past week has been principally notable from the excess in rain received in Northern Bengal, for the excess amount over the normal fall in this district has been 184 per cent.; that is, Northern Bengal has received nearly three times its usual amount within the week. The excess in this division is principally in the districts of Rungpore, Julpigoree and Darjeeling.

The case of Rungpore is specially noticeable, for this station and the surrounding districts have been for the whole of the monsoon season up to the present week receiving a rainfall far in defect of the normal, the amount recorded being generally about one-third to one-fourth of the average for the period. The rainfall for this week in the Rungpore district has, however, been between three and four times the average amount, while in the Julpigoree district it has been more than five times the normal. The other divisions do not show so large an excess, Eastern Bengal following next with an excess amount of 50 per cent.; in this division the principal excess was received in Chittagong, Chittagong Hill Tracts, Noakhally, and Mymensingh. Mymensingh again was a district which during the past month received deficient rainfall. Orissa and North Behar received a slight excess fall varying from 4 to 2 per cent., but the distribution was fairly general. South Behar reports a rainfall 35 per cent in defect, the defect being strikingly noticeable in Shahabad and Gya. In Chutia Nagpur and South-West Bengal there has been a deficient rainfall by about 12 or 13 per cent. of the normal, and in the former division the fall has been very irregular. Thus though the whole division on the average is in defect, Raneegunge and Berhampore districts have received a distinct excess. The Raneegunge district has in fact been a centre of heavy rainfall for some months past. In all divisions, even in those which have received deficient rainfall, the number of rainy days has been about equal to the average for the week, while in those districts which have received excessive rainfall the rainy days were above the normal. The whole Province has on the average received rain in 4·5 days during the past week.

The rainfall of the past week has brought up the averages of those districts which were previously deficient very considerably, and all the districts except East Bengal and North Bengal have received a rainfall during the present monsoon, i.e., since 15th May, in excess of the average. Even in these two divisions the defect is comparatively small, amounting to not more than about 7 per cent. of the normal fall.

*Saturday, 4th August.*—Pressure gave way slightly over the whole of the Province, excepting in South Behar and Chutia Nagpur. The changes were everywhere small, and did not alter the distribution of pressure, which varied from the normal by amounts ranging from 0·4" in excess at Dacca to 0·3" in defect at Burdwan and Jessore. Temperature continued to increase, and was above the average in Orissa and Bengal, but below it in Behar and Chutia Nagpur. The variations from the normal were, however, small. Patna registered a maximum temperature of 96·0. The winds were slightly weaker. They were unchanged in direction, except at Gya and Hazaribagh, where they shifted from east to west and north-north-west, respectively. No change of importance occurred in the humidity. Sky was lightly clouded in Orissa and South-West Bengal. It was overcast in East Bengal, and thickly clouded or overcast at the majority of the stations in Behar and North Bengal. Light general rain fell over almost the whole Province; the rainfall was less general in Orissa, South-West Bengal, and in South Behar. The heaviest rainfalls occurred in Northern Bengal and in the Chumparun district. Mickligunge, in the Cooch Behar district, reported 5·0 inches, while Motihari, Sewan, Julpigoree and Bishenpore (in the Bankura district) received amounts varying from 2 to 3 inches.

*Sunday, 5th August.*—Pressure decreased at the great majority of stations. The decrease was greatest in North Behar and in North Bengal, especially along the foot of the hills, where it amounted in some cases, as at Julpigoree, to nearly a tenth of an inch. Pressure was now below the normal in Eastern Bengal and in South Behar, being nearly 0·6" in defect at Jessore, 0·4" in defect at Dacca and 0·3" in defect at Patna. Temperature generally diminished, especially in Orissa and in the south-westerly districts of South Bengal. Elsewhere the changes were small, and temperature was still rather above the average at the majority of stations. Winds slightly diminished in intensity. They became strongly westerly in direction in South Behar and in Chutia Nagpur, and in other localities they also shifted round more towards the west. The air became much damper, and was at most stations abnormally moist, especially in North and East Bengal. The sky was heavily clouded in most divisions, particularly in North and East Bengal and in North Behar. Heavy and very general rainfall was reported from almost all districts. It was least general in some of the districts of South-West Bengal, but heavy local rainfalls were reported over this area. Rainfalls of over five inches were reported from Kandi (Moorshedabad

district), Julpigoree, Mickligunge, Matabhangha (Cooch Behar), and Buxa. Rainfalls of from two to five inches were reported from Banpur (Orissa). False Point, Balasore. Midnapore, Ghatal, Bishenpore, Bhola (Backergunge), Baloorghat (Dinagepore), Rungpore, Bagdogra, Dinhatta, Cooch Behar, Siligori, Sitamarhi, Godda, and Pachamba.

*Monday, 6th August.*—Pressure increased rapidly in all parts of the Province. The rise of the barometer was greatest in the western divisions and least in Eastern Bengal. At several stations the rise exceeded a tenth of an inch, so that pressure was generally above the average. Pressure was .094 inches in excess at Durbhanga, and at the stations in Orissa, Chutia Nagpur, South-West Bengal, and South Behar, it was on the average about .05" in excess of the normal. Temperature had not varied much, but remained somewhat above the average at most stations. Temperature fell locally at a few stations in consequence of heavy rain. Westerly winds had again extended over a greater part of the Province, and embraced Chutia Nagpur, Orissa, South Behar, and South-West Bengal. Southerly winds still continued in East Bengal, but in North Bengal and North Behar they were variable. The wind velocities were in all cases very small. Humidity continued very high in all divisions, except South Behar. In North Bengal and North Behar the air was practically saturated with moisture. The sky was almost completely overcast in all divisions, except South Behar. General rain, moderate to heavy in amount, fell over the whole Province. The rainfall was heaviest in some of the districts in Northern Bengal, and which it should be noticed had previously been centres of much diminished rainfall. Rungpore in the two days, 5th and 6th instant, received 7.31 inches, while in the previous month it was at least seven inches in defect. Rainfalls in excess of five inches were to-day reported at the following stations:—Noakhally, Rungpore, Cooch Behar, Matabhangha, Buxa, and Bhagulpore.

*Tuesday, 7th August.*—Pressure increased very rapidly over all parts of the Province. In some cases, as at Purneah, the increase was reported to be nearly two-tenths of an inch. The increase of pressure was somewhat irregularly distributed, but on the whole it was largest in Northern Bengal and in North and South Behar. Pressure was uniformly above the normal for the day by amounts which varied from .175" at Durbhanga to .083" at Dacca. Temperature was still rather above the normal for the day at the stations in Orissa and South-West Bengal, but it was below the average in North Bengal, in Behar and in Chutia Nagpur. Westerly winds still remained more or less persistent, especially in North and South Behar, and in North Bengal. In South-West Bengal and Orissa, winds became rather more southerly again. Wind velocities had again diminished, and feeble winds were now blowing over the whole Province. The air had become very much drier, and humidity was now distinctly below the average for the time of year. Cloud proportions had also diminished generally, especially in North Bengal, and North and South Behar. Rainfall in South-West Bengal almost ceased on this day; elsewhere as a rule light showers only were reported. The largest amounts were still falling in North and East Bengal. Chittagong received 3.9 inches, and Sitamarhi (Durbhanga) 2.5 inches, but there were only a few rainfalls of more than one inch reported.

*Wednesday, 8th August.*—Pressure commenced to fall over the northern divisions of the Province, but scarcely altered in the eastern and southern divisions. The fall was greatest in Behar, where it amounted to about five-hundredths of an inch. Pressure was, however, still above the average for the day by amounts which varied from .126" at Calcutta to .06" at Gya. Temperature fell over the greater part of the Province, except in Behar, and locally in the southern districts. In South-West Bengal, temperature was still above the average for the day, but elsewhere temperature was lower than the normal. Winds still continued to be strongly westerly over the whole Province, except in Eastern Bengal. The westerly set was particularly well-marked in Behar, in Orissa and in Chutia Nagpur. This westerly set of the winds has been a very prominent abnormal characteristic of the present monsoon. Wind velocities continued small, though there was a distinct increase in intensity at most stations since the 7th. Humidity increased somewhat rapidly in Orissa, South-West and East Bengal; but in Behar the air was much drier. Cloud proportion had also increased in South-West Bengal, and over the greater part of Orissa, but in Behar the sky had cleared to such an extent that a large proportion of the stations reported almost cloudless weather. On this date, South-West Bengal began again to receive rain in small amounts, while rainfall continued to decrease in Behar and Chutia Nagpur. The rainfall in some parts of North Bengal was heavy, but in almost all other cases it was light, and did not average more than a few tenths of an inch; at Fenny, in the Noakhally district, an abnormally heavy fall of 6.26 inches was reported. Only a few stations received amounts in excess of one inch.

*Thursday, 9th August.*—Pressure continued to decrease briskly. The decrease was greatest in the North Behar and North Bengal districts, where it in some instances amounted to more than .1". The fall was greatest at Durbhanga. Notwithstanding this rapid fall of the barometer, pressure was still above the average for the day at almost all stations. The excess pressure was well marked in South-West Bengal and in Orissa, where it varied from .076" at Calcutta to .033" at Burdwan. Temperature increased in the southerly and westerly districts, but decreased in North Bengal and in Behar. It was distinctly above the average for the day at most reporting stations, the largest excess amounts being 4° at Durbhanga, and 3° at Patna and Cuttack. Wind directions became a little more southerly than reported on the 8th, but the westerly

set continued to be strongly marked. In Chutia Nagpur, at Hazaribagh, and also at Buxar, a somewhat north-westerly wind was even reported. Wind velocities were decidedly increasing with the falling barometer. In South-West, East and North Bengal the sky remained very clouded; but in Behar the sky was clearing very rapidly. Humidity remained almost unchanged over the clouded area, but where the sky was clearing the air was becoming much drier. This was particularly the case in South Behar.

There was to-day a distinct break in the rains in South Behar and in most districts of North Behar, Chutia Nagpur, and South-West Bengal. The rainfall even in the remaining districts was very irregularly distributed, and seemed to consist principally of local showers which were, however, sometimes large in amount. Rainfall was most general in East and North Bengal. The following stations recorded amounts above four inches:—Cooch Behar, Matabhangha, and Rungamati, while Jaipore (Cuttack), Cox's Bazar, Chittagong, Serajunge and Mickligunge received amounts between two and four inches.

*Friday, 10th August.*—Pressure again diminished slightly over the whole Province, with the exception of certain parts of North Bengal. The diminution of pressure was greatest in South Behar, where, at Bhagulpore, it amounted to 0·074". Pressure was now below the average of the day in Behar, but above the average in most of the other districts of the Province. Temperature increased decidedly in South-West Bengal, in Behar and in Chutia Nagpur; elsewhere the variation was small in amount. The temperature was now above the normal in Behar by amounts varying from 5° to 1°, while in South-West Bengal it was above the average by amounts which averaged about 2° to 3°. The winds in Eastern and Northern Bengal had become decidedly more easterly, while in Behar the westerly element has increased. The tendency was therefore towards setting up cyclonic circulation. Wind velocities were in most cases small, but at the southern stations velocities were somewhat increasing. Humidity had increased very rapidly in North Bengal, and less rapidly in East Bengal. Darjeeling reported this morning a perfectly saturated atmosphere. In Behar and Chutia Nagpur humidity was much below the average. In East and North Bengal the sky was almost completely overcast, but in Behar the cloud proportion was very small.

The break in the rains continued over the whole of Behar and also in most of the districts of Chutia Nagpur, of Orissa and of South-West Bengal, all of which were practically rainless on this day. The heaviest rainfall continued to occur in North and East Bengal, and it was particularly heavy along the line of the hills, especially in the Cooch Behar district. In this district Matabhangha reported 10·41 inches, Cooch Behar 9·04 inches, and Mickligunge 4·97 inches. Buxa also registered 7·73 inches, and Cox's Bazar 5·29 inches. Several stations in these two divisions also received amounts in excess of two inches.

METEOROLOGICAL OFFICE, BENGAL,

ALEXANDER PEDLER, F.C.S.,

*The 13th August 1883.*

*Offg. Meteorological Reporter to the Govt. of India.*

## MEMORANDA.

The following table exhibits the mortuary statistics of the districts in Bengal for the month of June 1883. The leading features revealed by it are—

1. That the deaths of 83,360 persons were recorded in these districts, being at the rate of 15 per 1,000 of their population amounting to 66,162,926, against 16·32 per 1,000 in the preceding month, and 18·60 per 1,000 in the corresponding month of 1882.

2. That the highest death-rates were reported to have occurred in the following districts :—

							Ratio per mille.
Julpaiguri	...	...	...	...	...	...	31·32
Shahabad	...	...	...	...	...	...	29·76
Darjiling	...	...	...	...	...	...	24·00
Gya	...	...	...	...	...	...	23·64
Nuddea	...	...	...	...	...	...	21·48
Burdwan	...	...	...	...	...	...	21·36
Patna	...	...	...	...	...	...	21·00
Durbhangā	...	...	...	...	...	...	20·76

3. That the total mortality was distributed under the following specific heads of disease, and at the rates per 1,000 of population noted opposite them :—

Cholera	...	...	...	...	...	...	2·04
Small-pox	...	...	...	...	...	...	12
Fever	...	...	...	...	...	...	9·84
Bowel-complaints	...	...	...	...	...	...	.60
Injury	...	...	...	...	...	...	.48
Other causes	...	...	...	...	...	...	1·68

4. That while small-pox and bowel complaints prevailed with only normal severity generally, cholera and fever exhibited great activity in the following districts :—

<i>Cholera.</i>		<i>Fever.</i>	
	Ratio per mille.		Ratio per mille.
Julpaiguri	...	...	...
Shahabad	...	...	...
Darjiling	...	...	...
Gya	...	...	...
Durbhangā	...	...	...
Mozufferpore	...	...	...

5. That the death-rates under the heads of *Sex*, *Class* and *Age* stood as follows :—

<i>According to Sex.</i>		<i>According to Class.</i>		<i>According to Age.</i>	
	Ratio per mille.		Ratio per mille.		Ratio per mille.
Males	...	Christians	...	Under 1 year	...
Females	...	Hindus	...	1 and under 5 years	...
		Mahomedans	...	5 and under 10	...
		Budhists	...	10 and under 15	...
		Other classes	...	15 and under 20	...
				20 and under 30	...
				30 and under 40	...
				40 and under 50	...
				50 and under 60	...
				60 years and upwards	...

F. W. A. DEFABECX,

Offg. Sanitary Commissioner for Bengal.

The 13th August 1883.



OFFICE OF SANITARY COMMISSIONER FOR BENGAL,  
THE 13TH August, 1883.

E. W. A. DEFABECK,

Officer Sanitation Committee, San Fran.

## MEMORANDA.

THE following table exhibits the vital statistics of the first class Municipalities in Bengal for the week ending 28th July 1883. The following summary has been deduced from this table:—

(1) That births and deaths were registered in these Municipalities at the rates, respectively, of 22·9 and 31·1 per 1,000 of population, against 18·3 and 28·4 per 1,000, respectively, in the preceding week ending 21st July, indicating a considerable advance in the registration of both births and deaths.

(2) That the following Municipalities returned the highest proportions of births and deaths:—

<i>Births.</i>	<i>Deaths.</i>
	Ratio per mille.
Gya .. .. 94·3	Gya .. .. 88·1
Hughli .. .. 32·2	Poori .. .. 47·1
Poori .. .. 32·1	Monghyr .. .. 41·6
Bhagulpore .. .. 29·9	Bhagulpore .. .. 38·0
Chittagong .. .. 25·8	Patna .. .. 36·7
Serampore .. .. 25·5	Midnapore .. .. 35·6
Durbanga .. .. 25·2	Santipore .. .. 34·5
	Burdwan .. .. 33·6
	Arrah .. .. 33·5
	Ranaghat .. .. 29·9
	Suburbs of Calcutta .. .. 29·6
	Mozafferpore .. .. 28·0
	Hughli .. .. 26·9

(3) That the rates at which the several death-causes proved fatal, in comparison with the rates of the preceding week, were:—

	Ratio per mille during the weeks ending—	
	28th July.	21st July.
Cholera .. ..	5·0	5·6
Small-pox .. ..	·4	·3
Fever .. ..	13·1	11·4
Bowel-complaints .. ..	5·0	4·3
Injury .. ..	·5	·4
Other causes .. ..	7·1	6·4

shewing that, with a decrease in the mortality from cholera, there was an increase in the fatal results from all the other diseases.

(4) That cholera and fever were noticeably fatal in the following Municipalities:—

<i>Cholera.</i>	<i>Fever.</i>
	Ratio per mille.
Gya .. .. 36·2	Santipore .. .. 32·3
Poori .. .. 17·1	Gya .. .. 28·0
Midnapore .. .. 17·0	Burdwan .. .. 24·4
Monghyr .. .. 12·7	
Arrah .. .. 8·4	
Hughli .. .. 6·7	
Mozafferpore .. .. 4·9	

(5) That the death-rates under the heads of *Sex*, *Class*, and *Age* stood as follows:—

<i>According to Sex.</i>	<i>According to Class.</i>	<i>According to Age.</i>
	Ratio per mille.	Ratio per mille.
Males .. 31·9	Christians .. 28·3	Under 1 year .. 266·6
Females .. 30·2	Hindus .. 32·6	1 and under 5 years .. 47·7
	Mahomedans .. 28·0	5 and under 10 years .. 26·1
		10 and under 15 " .. 23·0
		15 and under 20 " .. 20·9
		20 and under 30 " .. 20·8
		30 and under 40 " .. 15·8
		40 and under 50 " .. 23·5
		50 and under 60 " .. 25·4
		60 years and upwards .. 53·1

F. W. A. DEFABECK,

Officiating Sanitary Commissioner for Bengal.

The 13th August 1883.

## Statement showing the Results of the Registration of Births and Deaths in the First Class Municipalities in Bengal during the week ending 28th July 1883.

NAME OF MUNICIPALITIES.	POPULATION.		BIRTHS.		DEATHS FROM—		RATIO PER 1,000 OF POPULATION PER ANNUM.		COMPARISON WITH PREVIOUS PERIODS.		MORTALITY ACCORDING TO —		SEX.				
	Males.	Females.	Total.	Males.	Females.	Total.	Cholera.	Small-pox.	All causes.	Other diseases.	Injuries.	Small-complaints.	Poison.	Cholera.	Males.	Females.	
Burdwan	16,917	16,063	32,980	7	8	15	10·7	12·2	22·9	87	...	...	...	24·4	1·5	33·6	
Midnapur	16,635	16,927	33,560	9	2	11	13·9	3·1	17·0	450	11	2	23	9·3	6·2	31	
Hughli	19,179	19,539	38,718	12	12	24	16·1	16·1	32·2	106	5	4	29	6·7	6·7	5·4	
Serampore	12,937	13,539	26,496	9	4	13	17·6	7·9	25·5	225	1	1	7	1·9	1·9	1·9	
Uttarpur	4,464	3,646	8,110	1	1	2	9·4	9·4	18·9	100	...	...	...	79	...	18·9	
Howrah	105,028	100,989	215,017	18	10	28	8·9	4·9	13·8	180	3	6	9	5·8	3·5	8·9	
24-Pergunnah	10,234	14,7205	251,439	33	49	85	7·4	10·1	17·5	73	7	1	65	19	3	47	
Kalinganagar	22,169	19,413	41,582	4	1	5	5·0	1·3	6·3	400	...	...	5	15	...	10·0	
Raniganj	4,655	4,028	8,683	1	1	2	6·0	6·0	12·0	100	1	1	2	5	6·0	...	12·0
Shantipore	12,542	11,559	24,131	5	4	9	10·8	8·6	18·4	125	...	15	1	...	...	16	...
Jessore	8,495	4,830	13,325	1	1	1	6·1	6·1	No male birth, 309	1	1	1	...	2	6·1	...	6·1
Rajshahi	9,625	10,766	20,391	3	1	4	7·9	2·6	10·5	400	...	1	1	1	...	1	...
Darjiling	2,439	4,579	7,018	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dacca	42,782	37,379	80,161	17	10	27	11·0	6·5	17·5	170	...	...	12	38	...	9·1	
Narsinganj	4,930	7,603	12,561	...	...	...	...	...	...	...	1	1	1	2	...	4·1	20·2
Chittagong	8,110	13,340	21,450	9	2	11	21·1	4·7	25·8	450	...	6	1	7	...	14·1	2·3
Comilla	5,053	8,135	13,506	2	2	4	7·7	7·7	15·4	100	...	5	...	5	...	19·3	19·3
Patna City	16,927	18,772	35,699	23	23	46	10·9	7·5	16·9	126	11	6	35	21	3	37	33·7
Gyn	37,831	38,240	76,071	64	74	138	43·7	50·6	94·3	86	53	5	41	8	1	21	36·2
Shahabad	22,005	20,969	43,974	11	7	18	13·1	8·4	21·5	157	7	14	1	6	28	8·4	16·7
Montferiore	19,638	23,054	42,742	7	8	15	8·5	9·7	18·2	87	4	10	5	1	3	23	4·9
Darbhanga	32,329	35,774	65,093	20	12	32	15·7	9·5	25·2	166	...	5	10	...	5	20	...
Surya	37,295	35,044	72,339	13	6	19	12·7	5·9	18·0	216	...	4	9	2	5	20	...
Bhadrak	47,813	39,640	87,453	33	10	43	20·8	9·1	29·9	230	1	25	11	5	42	9	22·6
Monghyr	67,520	28,154	95,661	11	9	20	10·0	8·1	18·1	122	14	10	7	6	6	12·7	5·4
Furnsak	15,016	13,927	24,932	7	8	16	12·0	4·9	13·8	100*	...	5	...	5	...	17·3	10·4
Hooghly	13,927	11,925	24,852	7	8	16	12·0	17·1	32·1	87	8	3	22	17·1	15·0	8·6	6·4
Total	63,449	63,449	1,342,080	920	207	1,387	12·5	10·4	22·9	110	128	12	324	13·1	5·0	13·1	31·1
																	403
																	382
																	31·2
																	28·9

Data not available.

No male deaths.

No female deaths.

216

22·2

14·0

13·4

12·1

11·9

10·5

9·5

8·0

7·0

6·0

5·0

4·0

3·0

2·0

1·0

0·0

DISTRICTS.	NAMES OF MUNICIPALITIES.	DEATHS AMONG—		RATIO PER 1,000 OF POPULATION PER ANNUM.		DEATHS.		RATIO PER 1,000 OF POPULATION PER ANNUM.		Age.	
		Christians.	Hindus.	Christians.	Hindus.	Buddhists.	Christians.	Hindus.	Buddhists.	Christians.	Hindus.
Burdwan	... ...	Burdwan	... ...	16	6	...	335·1	30·4	...	1	1
Murshidabad	... ...	Murshidabad	... ...	19	4	...	881	28·8	...	3	3
Hajipur	... ...	Hajipur and Chinarpur	... ...	16	4	...	263	59·5	...	1	1
Hobli	... ...	Hajipur and Chinarpur	... ...	7	...	...	14·4	...	...	1	1
Serampore	... ...	Serampore	... ...	9	...	...	19·6	...	...	1	1
Ularpur	... ...	Ularpur	... ...	...	...	...	8	5	...	...	...
Howrah	... ...	Howrah	... ...	24	13	...	270	15·3	31·0	1	1
24 Pergunnahs	... ...	Suburbs of Calcutta	... ...	85	55	...	383	29·5	29·6	12	12
Nuddea	... ...	Kishmager	... ...	2	6	7	181·8	9·6	42·0	1	1
Jesore	... ...	Ranaghat	... ...	3	2	...	21·3	76·2	...	1	1
Rajshahi	... ...	Santipore	... ...	12	4	...	364	30·0	...	2	2
Darjiling	... ...	Jessore	... ...	1	1	...	11·5	18·6	...	1	1
Dacca	... ...	Ramnagar	... ...	1	1	...	6·2	...	...	1	1
Chittagong	... ...	Darjiling	... ...	...	...	...	4	3	...	...	...
Tipperah	... ...	Bucca	... ...	19	17	...	24·5	22·5	...	1	1
Patna	... ...	Karangonj	... ...	2	3	...	16·4	25·3	...	1	1
Gaya	... ...	Chittagong	... ...	1	0	...	9·0	29·4	...	2	1
Shahabad	... ...	Comillish	... ...	1	4	...	8·7	33·1	...	2	1
Muzaffarpore	... ...	Patna City	... ...	93	20	...	40·7	25·4	...	10	7
Darbhanga	... ...	Gorakhpur	... ...	103	23	...	91·8	74·1	...	11	9
Serun	... ...	Arrah	... ...	20	8	...	33·5	31·5	...	4	3
Bhagalpur	... ...	Muzaffarpore	... ...	16	7	...	27·7	29·2	...	1	1
Monohly	... ...	Darbhanga	... ...	15	5	...	16·1	14·8	...	3	3
Purneah	... ...	Chuprah	... ...	18	2	...	23·8	9·7	...	3	1
Pooreh	... ...	Ehugulpoore	... ...	32	10	...	41·8	30·2	...	1	1
Pooreh	... ...	Mohly	... ...	39	7	...	43·4	29·9	...	11	6
Total	... ...	Furnesth	... ...	3	2	...	17·0	18·4	...	1	1
Total	... ...	Pooreh	... ...	23	11	...	47·3	33·1	...	4	2
				...	...	...	...	...	...	...	...
				153	101	...	153	28·0	...	51	40
				6	6	...	678	21·0	...	63	51
				678	21·0	...	253	31·6	...	73	47
				678	21·0	...	109	109	...	70	73
				678	21·0	...	153	101	...	63	51
				678	21·0	...	253	31·6	...	73	47
				678	21·0	...	109	109	...	70	73
				678	21·0	...	153	101	...	63	51

F. W. A. DEFABECK,  
Officer Sanitary Commissioner for Bengal.

Office of SANITARY COMMISSIONER FOR BENGAL,  
1st August 1883.

Results of the Meteorological Observations taken at the Alipore Observatory from  
5th to 11th August 1883.

Month	Date	Maximum in sun.	Number of hours of bright sunshine.	Temperature				Hygrometry				Wind				Miles recorded	Rain.	Weather.
				Mean pressure barometer at 32° Fahr.	Mean	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction					
1883.																	Inches	
Aug.	5th	155.9	8	29.515	84.8	89.0	9.3	79.7	80.5	0.988	78.9	83	W and SW by S ..	160	0.15	Cloudy, o, p.		
"	6th	108.7	Nil	'631	81.3	85.1	5.9	79.2	74.9	967	78.2	90	NW by W and NW	53	0.18	Cloudy, o, g, p.		
"	7th	146.5	2	'683	82.9	88.5	9.1	79.4	79.7	'977	78.5	88	WNW and SW by W	101	1.37	Cloudy, o, g, d, p,		
"	8th	141.3	Nil	'675	82.0	85.6	7.9	77.7	79.1	'958	77.9	88	SW by W and SW	128	0.01	Cloudy, o, g, d.		
"	9th	154.0	3	'612	84.5	89.7	9.8	79.9	80.8	1.006	79.4	85	SW by W and SSW	168	Nil	Chiefly cloudy, o.		
"	10th	153.7	2	'621	84.1	88.7	8.5	80.2	80.5	0.995	79.1	85	WSW, SW by W and S by W	133	..	Cloudy, o, lr.		
"	11th	150.2	5	'648	82.5	88.1	8.4	79.7	79.5	969	78.3	87	N, W by S and NNW	84	0.20	Cloudy, o, g, d, t, p.		

The mean pressure of the seven days	Inches.	29.626
The average pressure of the corresponding period for 24 years, S. G. Office	...	29.588
The total number of hours of bright sunshine of the seven days	Hours.	20
	...	0
The mean temperature of the seven days	...	83.2
The average temperature of the corresponding period for 24 years, S. G. Office	...	83.2
The extreme variation of temperature during the seven days	...	12.0
The maximum temperature during the seven days	...	89.7
	Miles.	
The highest velocity of the wind in one hour during the seven days	...	15
	lbs.	
The highest pressure of the wind on one square foot during the seven days	Not measurable.	%
	...	
The mean relative humidity during the seven days	87	
The average relative humidity of the corresponding period for 24 years, S. G. Office	86	
	Inches.	
The total fall of rain from 5th to 11th August 1883	...	1.91
The average fall of the corresponding period for 24 years, S. G. Office	...	2.27
The total fall from 1st January to 11th August 1883	...	37.99
The average fall of the corresponding period for 24 years, S. G. Office	...	39.03

The mean pressure, temperature &c are deducted from the traces of the Barograph and Thermograph, and from observations made at 6h, 10h, 16h, and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard Newman's No. 86 formerly at the Surveyor-General's Office.

The hygroscopic elements are obtained from Tables III, IV and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The direction of the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

o overcast, p passing temporary showers, g gloomy, d drizzling rain, lr lightning reflection, t thunder.

ALEXANDER PEDLER,

METEOROLOGICAL OFFICE, INDIA,  
The 13th August 1883.

For Meteorological Reporter to the Government of India.

## Abstract of the results of Meteorological Observations taken at the Alipore Observatory in the month of July 1883.

			Inches.	Date.	hour
The mean pressure of the month	...	...	29.509		
The average pressure of 24 years	...	...	29.537		
The highest pressure during the month	...	...	29.697	15th	10h.
The lowest pressure during the month	...	...	29.325	26th	16h.
The range of pressure during the month	...	...	0.372		
The total number of hours of bright sunshine during the month			137		
			Hours.		
The mean temperature during the month	...	...	82.8		
The average temperature of 24 years	...	...	88.5		
The highest temperature during the month	...	...	92.5	11th	
The lowest temperature during the month	...	...	74.9	18th	
The range of temperature during the month	...	...	17.6		
The mean daily range of temperature during the month	...	...	9.6		
The greatest range of temperature in one day during the month	...	...	14.3	11th	
			Per cent.		
The mean humidity during the month	...	...	87		
The average humidity of 24 years	...	...	85		
			Inches.		
The mean vapour tension during the month	...	...	0.972		
The average vapour tension of 9 years	...	...	1.002		
The mean cloud proportion of the month	...	...	8.76		
The total rainfall of the month	...	...	16.16		
The total rainfall of the month indicated by a Beckley's self-registering rain-gauge (mouth of the gauge 50.5 feet high)			15.11		
The average fall of 48 years	...	...	12.84		
The greatest fall in 24 hours	...	...	2.16	4th	
			Days.		
The number of rainy days in the month	...	...	27		
The average number of rainy days of 24 years	...	...	25		
			°		
The mean maximum equilibrium temperature of solar radiation of the month	...	...	146.1		
The mean difference of sun and air temperatures	...	...	58.0		
The greatest sun temperature	...	...	156.4	1st	
The greatest excess of sun over air temperature	...	...	67.8	1st	
The mean temperature of nocturnal radiation thermometer on woollen cloth	...	...	76.0		
The mean depression of nocturnal radiation thermometer below the minimum of air	...	...	2.5		
The greatest depression of nocturnal radiation thermometer below the minimum of air	...	...	4.4	17th	
			Miles.		
The mean movement of the wind per day	...	...	134.1		
The greatest movement of the wind in one day	...	...	283.0	7th	
The greatest movement of the wind in one hour	...	...	18.0	7th	9 to 10 A.M., noon to 1 P.M., 4 to 5 P.M.
The number of hours under each of the 8 points—					

N. 10, NE. 21, E. 74, SE. 129, S. 158, SW. 230, W. 68, NW. 25, Calm 29.

The results of observations at the Alipore Observatory are not rigorously comparable with the registers of past years (at the Park-street Observatory). The barometer is about 3 feet higher at Alipore, and, other things being equal, reads therefore .003 lower. The diurnal range of temperature is also greater at Alipore, and the mean temperature apparently about 0.6° greater; and finally, the thermometer, which has furnished the record of temperature at the Surveyor-General's Office during the last 20 years and upwards, is found to read 0.6° higher than the Kew standard thermometer, which is the standard of reference at the present Observatory.

ALEXANDER PEDLER,  
For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA,  
The 9th August 1883.

**Results of the Thermometrical Observations taken at the Meteorological Office,  
Chowringhee, from 5th to 11th August 1883.**

MONTH.	Date.	TEMPERATURE.				HYGROMETRY.				Rain
		Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	
1883.		°	°	°	°	°	Inches.	°	%	Inches.
August	5th	83·7	90·5	10·9	79·6	79·9	·971	78·3	84	0·10
"	6th	81·1	86·8	7·0	79·8	79·3	·978	78·6	93	0·14
"	7th	83·8	90·2	10·4	79·8	80·6	1·002	79·3	86	Nil.
"	8th	81·1	88·3	9·8	78·5	79·2	·974	78·4	91	1·83
"	9th	83·9	91·2	11·2	80·0	80·7	1·006	79·4	86	Nil.
"	10th	83·9	90·2	9·8	80·4	81·0	1·020	79·8	87	
"	11th	82·4	91·3	11·7	79·6	80·3	1·002	79·3	90	0·12

The mean temperature of the seven days ... ... 82·8  
 The extreme variation of temperature during the seven days ... ... 12·8  
 The maximum temperature during the seven days ... ... 91·3

The mean relative humidity during the seven days ... ... 88

The total fall of rain from 5th to 11th August 1883 ... ... 2·19

The mean temperature and humidity are obtained by applying to the mean of the 10h, 16h, and minimum readings a correction dependent on the range, and derived from the hourly observations at the Surveyor-General's Office, Chowringhee, in past years.

METEOROLOGICAL OFFICE, INDIA.

The 18th August 1883.

ALEXANDER PEDLER,

For Meteorological Reporter to the Govt. of India.

**Abstract of the results of the Thermometric Observations taken at the Meteorological Office, Chowringhee, in the month of July 1883.**

	Θ	Date.
The mean temperature during the month	... ...	82·4
The highest temperature during the month	... ...	92·3 11th
The lowest temperature during the month	... ...	75·7 18th
The range of temperature during the month	... ...	16·6
The mean daily range of temperature during the month	... ...	9·7
The greatest range of temperature in one day during the month	... ...	12·5 10th
	%	
The mean humidity during the month	... ...	89
	Inches.	
The mean vapour tension during the month	... ...	·986
The total rainfall of the month	... ...	15·97
The greatest fall in 24 hours	... ...	3·12 4th
	Days.	
The number of rainy days in the month	... ...	25

ALEXANDER PEDLER,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA,  
The 9th August 1883.

**PUBLIC WORKS DEPARTMENT, IRRIGATION BRANCH, BENGAL.**  
*Statements showing the total amount of traffic and tolls on the Circular and Eastern Canals and Nuddea Rivers for the month of May 1883.*  
(CIRCULAR CANAL.)

Number of boats.	NATURE OF CARGO.	APPROXIMATE		TONNAGE OF BOATS.		Tollage.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.	
<b>LOCAL TRAFFIC (PRIVATE).</b>						
115	Coal	90,000	20,000	1,30,725	4,669	Rs. A. P.
1	Ghooring	800	400	1,200	43	557 9 6
3	Roadstone	6,000	1,500	10,500	375	4 8 0
6	Limestone	3,000	750	4,575	163	91 14 0
9	Bricks	4,000	400	6,475	231	17 2 6
7	Earthenware	900	300	1,950	70	56 10 6
10	Sand	3,000	700	4,350	155	7 5 0
37	Lime	28,500	27,500	53,750	1,920	29 11 0
387	Firewood	1,70,000	81,000	3,26,075	11,645	470 5 0
2	Iron	900	225	1,850	66	2,445 9 0
118	Jute	81,000	1,63,000	1,64,000	5,857	1,424 8 0
7	Mats	1,600	4,800	3,275	117	28 10 6
3	Paddy	600	450	1,050	37	9 3 0
402	Rice	1,60,000	3,20,000	3,13,100	11,182	2,739 10 0
2	Wheat	8,000	20,000	1,650	59	14 7 0
92	Gram	40,000	1,00,000	70,925	2,533	620 9 6
55	Linseed	24,000	72,000	43,200	1,543	378 0 0
19	Mustard-seed	5,400	21,000	10,350	369	90 9 0
2	Other oils	400	2,000	925	33	8 1 6
195	Fruits	12,000	12,000	23,050	823	201 11 0
11	Vegetables	800	850	1,525	54	13 5 6
4	Tobacco	1,600	8,000	3,300	118	28 14 0
13	Spices	1,900	3,800	3,775	135	33 0 6
1	Cocoanut	10	6	75	3	0 10 6
79	Grass for cattle	3,000	1,500	6,500	232	56 14 0
11	Do. for thatching	7,000	4,000	13,750	491	120 5 0
29	Straw	5,000	2,500	10,950	391	95 13 0
96	Betel-nuts	25,000	2,50,000	50,425	1,801	441 3 6
68	Sugar, unrefined	14,000	1,40,000	28,300	1,011	247 10 0
30	Jaggery	9,400	19,600	19,975	714	170 10 6
154	Salt	58,700	1,17,000	1,19,250	4,259	936 9 0
7	Hides	200	50,000	475	17	4 2 6
9	Bones	700	350	1,400	50	9 8 0
2	Dry fish	300	1,500	625	22	5 7 6
1,986	Total	7,67,710	14,47,131	14,33,300	51,188	11,376 4 6
1,546	Total of same month last year.	5,13,611	8,91,018	10,78,900	38,532	9,038 12 3
<b>MISCELLANEOUS.</b>						
1,913	Passenger, empty, tiles, &c., shell, fish, planks, tamarind, rags, onion, golpatta, betel-leaves, bamboos, rafts, &c.	2,90,000	11,15,000	8,15,925	29,141	5,596 0 6
843	Boats under 25 maunds	.....	.....	.....	.....	210 12 0
	Demurrage	..	.....	.....	.....	233 12 0
	Return trip	..	.....	.....	.....	38 13 0
2,756	Total	2,90,000	11,15,000	8,15,925	29,141	6,079 5 6
3,144	Total of same month last year.	72,700	1,85,300	1,82,075	6,502	1,702 5 0
4,742	Grand total	10,57,710	25,62,131	22,49,225	80,329	17,455 10 0
4,690	Grand total of same month last year.	5,86,311	10,76,318	12,60,975	45,034	10,741 1 3

## MEMORANDUM.

Unrecovered balance on the 1st of the month	...	...	...	851 10 0
Amount of tollage for the month...	...	...	...	17,455 10 0
Amount credited in the accounts for the month	...	...	Total	18,307 4 0
				17,855 2 3

Balance at the end of the month

... 452 1 0

## TOLLY'S NULLAH.

Number of boats.	NATURE OF CARGO.	APPROXIMATE		TONNAGE OF BOATS.		Tollage.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.	
LOCAL TRAFFIC (PRIVATE).						
48	Coal	... 12,705	Rs. 3,176	30,425	1,086	Rs. 116 A. 3 P. 6
46	Roadstone	... 26,475	19,856	51,075	1,824	256 8 6
75	Bricks	... 17,200	5,200	33,175	1,185	129 14 6
138	Tiles	... 12,600	10,100	22,800	814	85 8 0
28	Earthenware	... 2,565	565	4,675	166	21 2 6
10	Sand	... 4,600	400	8,225	293	30 13 6
1	Lime	... 100	85	225	8	0 13 6
131	Firewood	... 34,300	8,575	19,500	2,481	519 13 6
1	Iron	... 40	190	75	2	0 10 6
2	Brass	... 200	6,000	550	20	4 13 0
3	Cotton	... 500	2,500	1,125	41	9 13 6
6	Jute	... 750	2,625	1,575	56	13 12 6
1	Mats	... 75	150	150	5	0 9 0
339	Paddy	... 35,511	35,511	69,800	2,492	603 13 0
1,034	Rice	... 1,36,184	2,75,560	2,55,450	9,123	1,756 14 0
34	Gram	... 9,850	14,675	19,750	705	172 13 0
1	Other cereals	... 50	100	100	3	0 6 0
31	Mustard-seed	... 11,000	33,000	2,00,325	726	85 9 6
2	Mustard oil	... 240	1,540	500	17	4 6 0
109	Fruits	... 7,600	7,000	14,350	512	54 13 0
70	Vegetables	... 9,260	10,306	17,600	629	69 8 6
3	Tobacco	... 600	3,000	1,100	39	7 10 0
10	Cocoanut	... 142	70	250	9	2 8 0
26	Grass for cattle	... 2,700	650	5,350	191	38 9 0
4	Do. for thatching	... 1,000	350	2,150	77	18 13 0
127	Straw	... 14,178	3,075	27,850	993	160 9 0
88	Jaggery	... 15,100	45,300	28,375	1,013	206 0 6
101	Salt	... 32,951	82,402	68,175	2,435	476 4 6
2	Dry fish	... 50	175	200	7	1 12 0
2,466	Total	... 3,88,526	5,72,130	8,84,900	26,952	4,850 13 0
3,500	Total of same month last year.	6,19,399	7,29,822	12,34,025	40,584	9,080 15 0
MISCELLANEOUS.						
1,385	Empty, passenger, gol-patta, shell, fish, planks, tamarind, tiles, stonechirah, chaff, brick-dust, babla-bark, &c.	2,38,379	8,38,270	4,77,725	17,061	2,381 12 6
887	Boats under 25 maunds	.....	.....	.....	.....	64 12 0
...	Demurrage	.....	.....	.....	.....	84 13 3
...	Return trip	.....	.....	...	.....	16 0 0
2,222	Total	... 2,38,379	8,38,270	4,77,725	17,061	2,547 5 9
3,157	Total of same month last year.	65,492	55,465	6,62,150	23,648	3,781 12 3
4,060	Grand total	... 6,26,905	14,10,400	13,62,625	44,013	7,398 2 9
6,657	Grand total of same month last year.	6,84,891	7,85,287	18,96,175	64,232	12,862 11 3

## MEMORANDUM.

		Rs. A. P.
Unrecovered balance on the 1st of the month	...	123 14 0
Amount of tollage for the month	...	7,398 2 9
	Total	7,522 0 9
Amount credited in the accounts for the month	...	7,394 0 9
	Balance at the end of the month	128 0 0

## NUDDEA RIVERS.

(I).—*Jellinghee River.*

Number of botas.	NATURE OF CARGO.	APPROXIMATE		TONNAGE OF BOATS.		Tollage.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.	
LOCAL TRAFFIC (PRIVATE).						
7	Coal	1,875	937	3,600	128	18 0 0
6	Ghooting	475	118	1,075	38	2 11 0
2	Tiles	100	25	375	13	0 7 6
1	Gunny (Indian)	150	1,500	350	12	3 8 0
19	Jute	4,450	8,900	8,750	312	87 8 0
33	Paddy	5,625	5,625	11,650	416	87 6 0
89	Rice	7,350	14,700	14,725	525	110 7 0
99	Wheat	28,550	57,100	56,650	2,023	424 14 0
17	Gram	4,600	6,900	9,100	325	68 4 0
31	Other cereals	7,100	14,200	13,375	477	100 5 0
3	Linseed	450	1,350	950	33	7 2 0
3	Mustard-seed	550	2,750	1,375	49	10 5 0
1	Indigo-seed	846	3,460	725	25	5 7 0
2	Other oils	165	1,320	550	19	5 8 0
1	Oil-cake	50	50	125	4	1 4 0
1	Sugar, refined	10	100	25	.....	0 4 0
77	Salt	16,100	48,300	31,175	1,113	311 12 0
1	Hides	150	1,500	375	13	3 12 0
6	Ghee	775	23,250	1,775	63	17 12 0
197	Empty	.....	.....	1,73,200	6,185	216 8 0
76	Miscellaneous	9,150	73,200	27,550	983	275 8 0
672	Total	88,021	2,65,285	3,57,475	12,756	1,758 8 6
672	Total of same month last year.	77,530	2,72,096	3,40,550	12,151	1,527 9 6
MISCELLANEOUS.						
405	Passenger boats	...	.....	....	.....	136 8 0
34	Rafts of timber 321D x 28½G.	.....	.....	....	.....	125 11 6
439	Total	...	.....	....	.....	262 3 6
881	Total of same month last year.	.....	.....	....	.....	334 3 6
1,111	Grand total	...	88,021	2,65,285	3,57,475	12,756
1,553	Grand total of same month last year.	77,530	2,72,096	3,40,550	12,151	1,861 13 0

## MEMORANDUM.

	Rs. A. P.
Unrecovered balance on the 1st of the month	... .....
Amount of tollage for the month	... 2,020 12 0
Total	... 2,020 12 0
Amount credited in the accounts for the month	... 2,020 12 0
Balance at the end of the month	... .....